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ABSTRACT

Several years ago, a coalition of Chicago civic groups met to determine the scope of the urban dropout problem and develop strategies for dealing with it. The resulting research program rejected both attrition and survey analysis approaches in favor of direct examination of all student records for three graduating classes (1982, 1983, and 1984) enrolled in all Chicago public high schools. Instead of treating dropout prone children as "marginal" students needing special programs, this three-part study posits schools' responsibility to provide students with the best possible education. The burden is primarily on changing schools, not the children. The first phase, examining elementary schools' contribution to the dropout problem, found that schools' success rate ranged from a 100 percent graduation rate to a 100 percent dropout rate. Below normal reading scores and the proportion of overage and poor students attending elementary school were strong dropout predictors. Surprisingly, race was not a strong factor. The second and third research phases examined causes of students' lack of preparation for high school and successful strategies for treating this problem. Using an ethnographic approach, the study ascertained that high schools emphasizing strong principal leadership, discipline and safety measures, student and teacher attendance, interactive teaching, good facilities maintenance, and cooperation between faculty and administration were successful at retaining students. Increasing time on task would most effectively improve inner-city schooling. Included are numerous tables and 10 references. (MLH)

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A COMPREHENSIVE ANALYSIS OF THE DROPOUT PHENOMENON IN AN URBAN SCHOOL SYSTEM

Fred Hess
Chicago Panel
on Public School Policy and Finance

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I. Designing Research on the Urban Dropout Problem

What is the scope of the urban school dropout problem, and what can be done about it? That was the question raised by a coalition of civic groups in Chicago several years ago. It became my job to design a research program which would develop answers to the question. The two parts of the question set a logical sequence to the research: defining the scope and locus of the problem and identifying possible approaches to reducing the problem.

Part of any such research design must be a statistical analysis, determining how many students dropout out of school and do not graduate. But such statistical approaches are inevitably trapped into evaluating past action. One can only determine the number of dropouts after a class has completed high school. To answer the second part of the question, what to do about the dropout problem, a closer examination of the dynamics of schooling is necessary. An ethnographic approach is ideally suited to such an effort. But an ethnographic approach is, necessarily, most informative about currently existing reality and faces severe constraints in providing data about previous reality. A third approach involves an effort to combine these two research strategies by finding present factors which operate relatively reliably as proxies for future behavior. For this dropout study, that entails determining present indicators which relate closely to future dropout rates. The research design, and the results which have been achieved by it thus far, was developed with all of these issues under consideration. It differs significantly from a number of other current approaches to the dropout problem.

Over the last decade and more, there have been two predominant approaches to studying the dropout problem. One approach has been a statistical approach primarily based in comparisons of enrollment statistics. Most state-level data on dropouts is really attrition analysis, comparing ninth grade enrollments with graduation statistics four years later. The second approach also involves statistical analysis but is based on interview or survey data. Both of these approaches were rejected in the Chicago research design. The attrition enrollment approach suffers from several problems which seriously compromise its reliability. Ninth grade enrollments regularly include students retained from a previous high school cohort, thus inflating the number of students counted in the entering class and, as a result, deflating the graduation rate. Since attrition studies usually establish the dropout rate as the inverse of the graduation rate, they usually overstate the dropout rate. Second, the assumption is that students transfering out of the class equal those transfering in, which is very unlikely. Third, as a study of individual records shows, as much as 10% of the class is still enrolled in high school during the fall of the year after the majority of the class gradutated. Such studies (Cf., Moore, 1985), by overstating the problem, gain much press attention, but are very inaccurate.

The survey approach suffers directly from sampling and informant reliability problems. The most prominant example of such problems is the widely cited *High School and Beyond* data base. The sampling for this study is so faulty that scholars working with the data make lengthy apologies for the inability to generalize from it. When *HSB* data for Midwestern urban cities were compared to our analysis of 100,000 student records for Chicago (the whole universe of the student cohort), *HSB* data (Cf., Barro & Kolstad, 1986) were found to understate the dropout rate by more than 50%. Yet this "rich" (but unreliable) data base continues to be used as the foundation for other research, with pernicious results. A recent study (Earle, *et al.*, 1987) used *HSB* data to validate female risk of dropping out as equal to that of males, when in fact, at least in urban systems like Chicago, males drop out at a 50% higher rate. Thus, by relying on unreliable data, this whole study has been rendered useless, since its basic premise is wrong.

Although surveys give some sense of student self-awareness about their participation in the dropout problem, self reported histories and outcomes are often not very reliable. Finally, most students are also unreliable informants about larger social forces affecting school performance. For these sets of reasons, both attrition and survey approaches were rejected as methods of determining the scope of the dropout problem.

II. Systemwide Dropout Analysis

The research design which has been developed, and which is still evolving, started from a direct examination of all student records for three graduating classes enrolled in all Chicago public high schools, the classes of 1982, 1983 and 1984 (Hess & Lauber, 1985). Over 100,000 students were tracked longitudinally from entrance into high school until departure. This comprehensive analysis avoided many of the problems of previous approaches, though it was a massive undertaking. Other major city school systems, such as Miami (Stephenson, 1985) and Boston (Camayd-Frexias, 1986) have also recently employed this longitudinal approach. The degree of error in longitudinal studies of entire student cohorts is restricted to data entry problems.

The major analytic issue remaining was how to handle transfers. Because, in Chicago, we were primarily concerned with policy implications, it was determined to ignore students transfering into Chicago high schools from outside the system in order to focus on what Chicago schools were doing with and for those students who originally enrolled in them. This approach produced a fairly precise dropout rate for the system (42.8% for the Class of 1982) and for each of the 63 schools in the system (dropout rates ranged from 10.8% to 62.6%). Similarly precise figures were attained for each desired sub-group of students: by gender, age, race/ethnicity, etc. By fixing the dropout statistics so accurately, the bureaucratic contention that there was no serious dropout problem in Chicago was firmly put to rest.

But determining the scope and locus of the problem was only the first step in the research design. Further analysis and research was necessary to determine what to do about the problem. At this point, the orientation of the research became an important factor. Most of the dropout research to date has focused exclusively on determining who the dropout prone students are and how they must be changed to be more likely to graduate (an approach strongly criticized by William Ryan (1972) as a part of the process of *Blaming the Victim*). The orientation of the sponsoring agency for this research is that schools are charged to provide the best possible education to the students who enroll in them. Thus, from this perspective, the burden is primarily upon the schools and the school system, rather than primarily on changing children. This is a very different approach than the traditional approach of treating dropout prone children as "marginal" students who need special programs (Cf. Wehlage, 1983). In fact, this orientation was reinforced by the findings of the first part of the study.

Analysis of the data in the first phase of the study indicated that the best predictors of students who would drop out were their age and reading scores at entrance to high school. In other words, the dropout problem was primarily an elementary school product rather than a failure at the high school level. Dropout rates were directly and inversely related to student test scores on their eighth grade Iowa Test of Basic Skills. More than two-thirds (67.8%) of those students scoring in the lowest stanine dropped out; only 18.8% of those scoring in the high average or above ranges dropped out. Two-thirds of the 12,804 students who eventually dropped out entered high school reading at below normal levels (Stanine 3 or lower). More than half of all entering freshmen (53%) had below normal or missing reading scores. Such systemwide achievement scores indicates a failure of the school system as a whole, not just the failure of some marginal students.

The second major predictor of eventual dropouts was their age at entrance. Those students who were overage (15 or older) were much more likely to drop out (60.9%) than were those at normal age or younger (36.5%). A quarter of all entering freshmen were overage and overage dropouts made up a third of all dropouts. Two other characteristics varied significantly with the dropout rate. Males were half again as likely to drop out as were females (58% of all dropouts were males, with a 49.2% dropout rate). Dropout rates also varied with race: Hispanics - 46.9%; Blacks - 45.1%; Whites - 34.5%; Asians - 19.4%. When gender and race were controlled, reading scores and age were seen to be the more significant factors. In fact, a closer examination of the data indicated that gender differences were most likely accounted for by differential treatment of boys in elementary school: while male reading scores are only slightly lower than those of females, they were half again as likely to be overage at entrance to high school. These data are in sharp contradiction to the assumptions in the NASBE study cited above, and were ignored by its authors.

When dropout rates at individual schools were examined, the same patterns held. School dropout rates varied directly with the entering scores of the freshman class (percent reading below normal) and the

percent overage. Gender did not vary significantly from school to school, and race was only weakly related to dropout rates. But the variation in student preparedness was immense. At one school, more than 50% of the students were overage. At another, 80% of the entering freshmen were reading at below normal levels. In fact, at more than a third of the city's high school, more than half the entering class were reading a below level rates. In this situation, one can hardly blame the students for eventually dropping out; they were simply not prepared for high school work. Nor is it adequate to treat these students as "marginal" for, at least at these schools, their situation was the behavioral norm. A "special program" approach is not appropriate for more than half a school's student body. However, the analysis did show that there were some schools who were more successful in graduating the students they received than others with a similar entering class.

In order to determine what to do to reduce the dropout rate, two further research projects were designed. One was focused on the question of why students were enrolling in high school so unprepared to do high school work. The second was shaped to discover what high schools are doing successfully, given the unpreparedness of their entering students.

III. Schools for Early Failure
Educational Triage in The Elementary Schools

The study of elementary school contributions to the dropout problem required the collection and analysis of additional and, in some cases different types, of data from that analyzed in the original study. First, data were collected and aggregated at the elementary and middle school level for those schools with an eighth grade graduating class numbering 10 or more in the 1977-1978 school year. While there are over 450 elementary and middle schools in the Chicago Public School system, only 381 such schools graduated 10 or more eighth graders who entered a Chicago public high school in the Fall of 1978. The remaining schools were organized as K-3, K-6, K-7 or special schools which did not graduate ten eighth graders. This research complements the initial high school study in analyzing the earlier school experiences of the Class of 1982.

Recent research on public education has pointed to the importance of the first years of education. These are the critical years when the capabilities of students to acquire reading, writing, and math skills are shaped. It is in the elementary grades that the individual student's basic capabilities are established. Either students acquire basic skills and progress normally, or they require extra assistance if they are to succeed in school. It is in the elementary grades that remedial instruction can have the most significant impact. It is in the elementary grades that below normal reading capabilities are first manifested and are, or are not, corrected. This is true for all basic education skills. "Lack of preparedness" is produced in the elementary schools. The number and percent of overage students are the result of the Chicago Public School system's retention policies, and how these policies are implemented by principals and teachers in the elementary schools. Most eighth grade graduates entering high school as freshmen at fifteen or older do so, at least in part, because of the actions and/or inactions of elementary principals and teachers.

Two other factors which are important in determining the overall graduation rate are the extent of poverty and the racial census of the school. Particularly in the 1970s, Chicago elementary schools were neighborhood schools, and neighborhoods in Chicago tended to display very specific and undiluted poverty and racial characteristics. Elementary schools were very likely to be entirely populated by students from a single racial group from the same socio economic background. Despite six years under a Desegregation plan, the current situation has been modified only slightly.

Extensive data concerning the eighth grade students, characteristics of the schools, and teacher experience at these 381 schools was collected for analysis in this study. Some of this information was provided from computerized data maintained by the Chicago Board of Education; other data were collected from the published reports of the Board of Education. The types of information collected and analyzed in this study include: data on the eventual graduation and dropout rates for students attending each of Chicago's elementary schools, information on reading scores, the number of overage students, poverty rates in each school, racial composition, and data on years of teacher experience in the elementary schools during the 1977-1978 school year.

It is important to discuss the other information collected for this study and what these various types of data mean. Two types of reading scores were collected and analyzed for this study: 1) the number of students in each stanine on standardized reading t-tests, and 2) median reading scores in the third, fifth, and eighth grades for members of the Class of 1982. Reading scores are here used as an assessment of overall preparedness. The reading scores collected and analyzed provide different measures of the academic progress of the Class of 1982. Median reading scores provide a measure of the progress of classes at specific elementary schools. This measure assesses the average reading skills of third and fifth grade classes (for the Class of 1982) in comparison to national norms. These scores are provided for each elementary school, and consequently, they provide a measure of the success of the different elementary schools in the Chicago Public School system in preparing its students. Median reading scores provide a way to directly compare different elementary schools.

Stanine reading scores, by contrast, provide an indication of how many students in each elementary school are reading at, below, or above national normal reading levels. In this phase of the study, as in *Dropouts From The Chicago Public Schools*, Stanines 1-3 are considered below normal reading scores, Stanines 4-6 are considered as indicating normal reading skills, and Stanines 7-9 above normal reading scores. This measure is slightly different and more sensitive than median reading scores because it is directly based on individual students' preparedness. This measure reflects the number of *individuals* who are reading below normal in each school. Median reading scores, which indicate the score which half the class exceeds and half the class is below, give only the overall situation of the

class when it was in the third, fifth, and eighth grade in each school. Data on below normal reading scores tell us precisely how many students in each elementary school are insufficiently prepared to do at least low average academic work. The recently instituted Illinois state school report cards use a comparable measure in reporting the proportion of the class in the lowest quartile by national norms; the lowest quartile (25% nationally) approximates Stanines 1-3 (the lowest 27% nationally). As such, we shall see that below normal reading scores are much more powerful predictors of the eventual dropout rate than median reading scores.

Informatior was also collected on the number of students who were overage by the time they reached the eighth grade in each of these elementary schools. Data on the number of students in each age group for each elementary school was provided by the Board of Education. In this study, as in the high school dropout study, students who were 15 or older on December 1st of the year they entered high school are considered overage. Most of these students had been held back one or more years in one of the primary grades. These students, as we already know from the high school study, are much more likely (60.9%) than normal aged entering freshmen (36.5%) to eventually drop out of high school.

Data on the social composition of the elementary schools also provided valuable information for this study. Information on the percent of low income students, as well as the number of White, Black, Hispanic, and Other students was collected and analyzed for each of the 381 elementary schools. The racial proportions of each school present an unambiguous measure. The low income percent figure in each school is not. This figure does not reflect the actual number of students in a given school who come from families with incomes below the poverty level; rather it is a composite measure, for the year 1980, which takes into account the number of families in the community who have incomes under the poverty level and the number of AFDC families in the neighborhood.

This study establishes an eventual graduation rate for each elementary school from data which is historical. Data provided by the Board of Education has enabled us to disaggregate, for each elementary school, the number of students in the eighth grade graduating class who ultimately graduated or dropped out. By providing a dropout rate for each elementary school in the Chicago Public School system for the Class of 1982, a quantifiable assessment of the success or failure of public elementary schools in preparing students for success in the public high schools and eventual graduation can be made.

Assessing the Overall Elementary School Picture

The basic data used in this study have been aggregated into deciles *of elementary schools* by eventual dropout rates for each elementary school. This information is provided in Table 1. The data on this table were developed by ranking each of the 381 elementary schools included in this study (those graduating 10 or more students from the eighth grade in 1978) by their eventual dropout rate from the Chicago Public School system. Once ranked, these schools were then divided into deciles by dropout rates (that is, elementary schools were grouped into tenths of the total sample). Once these deciles were defined, the data presented on Table 1 were aggregated on the basis of the total number of students within each decile. An example should make this clear. The dropout rate for each decile is not calculated by summing the dropout rate for each school and then dividing by the number of schools in that decile (which would be averaging averages). Rather the dropout rate was calculated by summing all the students within that decile who did leave the Chicago Public School System before graduating and dividing this number by the total enrollment of that same decile. All data presented on Table 1 is similarly computed on the basis of the students within each of these deciles.

Table 1 provides information on total enrollments, ultimate dropout rates, reading scores, and the social characteristics of students within each decile of elementary schools graduating eighth graders in the Class of 1982. The results are striking.

Table 1: Comparisons of Elementary Schools, Chicago Public School System, 1977-1978 by Deciles (of schools) of Eventual Dropout Rate

	ENROLL-MENT	DROPOUT RATE	PERCENT READING BELOW NORMAL	MEDIAN READ SCORE	PERCENT OVERAGE	PERCENT LOW INCOME	PERCENT LIMITED ENGLISH	WHITE	BLACK	HISP	OTHER
DECILE 1	1773	14.2	14.1	8.5	13.0	9.4	4.2	72.8	19.8	4.1	3.9
DECILE 2	2082	23.8	21.4	7.2	15.6	13.0	5.5	54.8	35.9	4.8	4.5
DECILE 3	2514	31.7	41.1	7.2	21.7	35.5	6.1	25.6	65.6	7.9	0.9
DECILE 4	2896	36.5	45.8	6.7	20.2	32.8	10.1	16.3	65.2	16.7	1.8
DECILE 5	2890	39.8	47.5	5.8	23.1	46.8	5.0	11.2	80.8	6.8	1.3
DECILE 6	2949	43.1	49.0	6.7	23.9	47.9	7.1	11.9	77.8	9.0	1.4
DECILE 7	3098	46.4	50.0	6.2	24.7	47.6	10.9	15.6	67.1	15.2	2.7
DECILE 8	4335	49.9	54.0	6.0	28.8	55.9	8.7	7.8	72.4	19.2	0.6
DECILE 9	2623	53.6	54.8	6.3	22.0	54.0	3.8	10.6	77.7	11.1	0.5
DECILE 10	2719	64.5	64.0	3.4	45.3	39.5	10.7	12.9	63.3	23.2	0.7

Students in the Chicago Public School System receive separate and different treatments in the delivery of educational services. Table 1 shows that there are three clearly differentiated classes of schools in

the Chicago system: 1) the best achieving schools (deciles 1 and 2) had low dropout rates (indeed, about half the norm in the Chicago system) and much more adequately prepared their students for high school work; 2) the majority of elementary schools (deciles 3 through 9) in Chicago which apparently provided a quite common quality of elementary education which eventually produced a staggeringly high (and, for this system, normal) level of dropouts; 3) lastly, there were those schools which acted as a respository for the most ill-prepared and problem-prone students in the public schools. It is important to examine this delivery of separate treatments to students in the elementary grades in the Chicago public schools.

There are in fact two primary issues here. One issue is that most elementary schools in the Chicago Public Schools *made failure and inadequate preparedness the norm*. The second problem is the extreme differences which exist between the best achieving (the "cream" of the elementary schools) and the worst achieving schools which acted as holding grounds for children with severe educational problems.

It is clear that most elementary schools similarly prepared members of the Class of 1982, and, by national standards, prepared them quite poorly. Over half of the elementary schools analyzed in this study produced eighth grade classes in which 43% or more of those students dropped out of the high schools. Over eighty percent of the schools produced eighth graders where over 41% of those students were reading far below national norms. Additionally, the norm for Chicago public elementary schools was to have one fifth of the students overage. In other words, in nearly all Chicago elementary schools, 20% of the students of any one class have been retained at least once by the time they leave elementary school. One last fact is important here. These elementary schools (here represented in the third to ninth deciles) serve students who are in large part either Black or Hispanic and overwhelmingly from low income families. These students, which by race and poverty, were the least advantaged social groups in the city entered and passed through elementary schools where lack of preparedness and failure were the rule.

The drastic contrasts in the best achieving and the worse achieving elementary schools are also important and telling. A listing of the schools in both these categories is provided in Table 2. The most striking difference in these two groupings of elementary schools is that the dropout rate for students in the worst achieving schools is over three times (64.5%) that of the best achieving elementary schools. There are thirteen schools from which more than two-thirds of their students eventually dropout. Matching this is the very high proportion of students in the worst achieving schools who are reading below normal by the time they reach the eighth grade (64.0%), and the very high level of overage students (45.3%, more than two of every five). It is also clear that there are sharp differences in the social class of students attending the better as opposed to the worse elementary schools in the Chicago system.

Some of these differences can be quickly summarized. One of the most noticable things that differentiates these two sets of schools is

that the best achieving schools tend to be almost uniformly K-8 schools (only 4 of 16 are not). While many of the worst achieving schools are also K-8 schools, there are 13 (of 38) which are upper grade centers or Educational Vocational Guidance Centers (EVGC) to which students who had attended K-6 or K-7 schools transfer for the middle school years. Furthermore, enrollments are smaller in the better achieving elementary schools and somewhat bigger in the schools in the worst decile. Predictably, the level of students reading below normal is drastically smaller in the best schools in comparison to the worst elementary schools. Similarly, there are fewer overage and low income students in the better schools; there were many in the worst achieving schools in the system. Racially, it is important to note that predominantly White and predominantly Black elementary schools are to be found in both the best and worst achieving elementary schools in the Chicago Public Schools. There are, however, several predominantly Hispanic elementary schools which are among the worst achieving elementary schools.

Table 2: Comparing the Best (deciles 1 & 2) and the Worse (decile 10) Performing Elementary Schools, Class of 1982, Chicago Public Schools

DIST	UNIT	NAME	TYPE	ENROLLMENT	DROPOUT RATE	PERCENT BELOW NORMAL	PERCENT OVERAGE	PERCENT LOW INCOME	PERCENT WHITE	PERCENT BLACK	PERCENT HISPANIC	PERCENT OTHER
Worse Performing Schools												
8	5910	SHIELDS	KB	53	54.7	28.6	7.5	75.4	90.1	1.0	8.5	0.4
4	4060	HOME	KB	84	54.8	79.3	21.4	52.7	0.9	98.4	0.7	0.0
8	3900	HEDGES	KB	31	54.8	25.8	9.7	22.0	67.0	0.3	29.9	2.8
11	2070	ARTHUR	KB	31	54.8	53.6	3.2	38.5	65.9	0.1	33.1	0.9
20	3160	CURTIS	KB	113	54.9	71.4	15.0	18.1	0.2	99.0	0.8	0.0
8	7940	W GARFIELD PK *	2-8	202	55.0	65.8	25.7	72.4	0.0	100.0	0.0	0.0
11	3090	DOUGLAS	KB	167	55.1	68.1	31.1	57.7	0.0	99.9	0.1	0.0
20	6260	VON VLISSINGEN	KB	185	55.1	58.2	24.9	53.2	0.1	99.9	0.0	0.0
4	2160	BARRY	KB	27	55.6	25.9	25.9	6.9	83.4	0.0	14.0	2.6
16	5270	F PARKER GEN ACY	KB	72	55.6	51.4	34.7	0.0	0.0	98.6	0.0	1.4
6	4840	MITCHELL	KB	45	55.6	38.9	35.6	31.8	31.8	3.0	64.8	0.4
14	5850	SHAKESPEARE	KB	30	56.7	40.0	26.7	84.5	0.0	100.0	0.0	0.0
6	7420	DE DIEGO GEN ACY	KB	156	57.1	77.9	29.5	0.0	2.6	20.5	75.6	1.3
13	5280	F PARKMAN	KB	47	57.4	59.1	34.0	0.0	0.0	100.0	0.0	0.0
6	7740	YATES UPPER *	7-8	158	57.6	68.2	28.5	45.0	20.5	3.7	74.3	1.5
5	2960	DARWIN	KB	92	57.6	56.5	35.9	46.1	23.9	7.7	67.7	0.7
3	2040	ALCOTT	KB	26	57.7	26.1	38.5	21.7	47.5	19.8	28.4	4.3
14	7730	WADSWORTH *	7-8	71	57.7	60.9	14.1	75.6	0.0	100.0	0.0	0.0
6	4380	KOSCIUSZKO	KB	57	57.9	52.1	7.0	47.2	21.5	0.9	75.7	1.9
5	3560	VON GOETHE	KB	53	58.5	40.0	39.6	0.0	45.3	1.9	50.9	1.9
6	2530	BURR	KB	39	59.0	36.1	35.9	43.1	19.5	1.4	76.5	2.6
6	3120	DRUMMOND	KB	27	59.3	52.2	51.9	37.3	39.4	1.3	58.9	0.4
19	7630	THORP ED/VOC CTR	8-9	101	59.4	94.0	65.3	36.3	0.0	92.3	7.7	0.0
10	3970	HERZL	KB	89	59.6	71.3	21.3	79.5	0.0	100.0	0.0	0.0
12	3450	FULTON	KB	80	60.0	45.2	28.8	22.1	43.0	4.6	47.3	5.1
10	6440	WHITNEY	KB	46	60.9	39.0	21.7	0.0	32.6	2.2	65.2	0.0
3	3730	HAMILTON	KB	34	61.8	19.4	17.6	28.0	58.1	0.3	36.1	5.5
13	3790	HARTIGAN	KB	84	61.9	68.7	60.7	82.4	0.0	100.0	0.0	0.0
5	4170	JAHN	KB	50	62.0	36.2	34.0	23.5	67.7	0.2	28.9	3.2
8	5450	PLAMONDON	KB	16	62.5	20.6	18.8	38.3	4.9	17.0	73.9	4.2
6	6201	VON HUMBOLDT BR	7-8	156	62.8	78.9	9.0	0.0	7.1	16.1	76.5	0.3
13	3740	IRVING	KB	34	64.7	44.8	35.3	22.9	44.1	0.0	54.1	1.8
14	7813	TUBMAN LIV CTR	KB	20	65.0	N.A.	40.0	0.0	0.0	100.0	0.0	0.0
5	6430	TERRISON EVOC *	8	127	67.7	95.8	77.2	47.8	0.0	100.0	0.0	0.0
5	5790	SCHNEIDER	KB	35	68.6	37.5	48.6	55.7	32.9	15.3	50.1	1.7
16	5160	GOETHALS ED/VOC C	8	147	68.7	80.6	76.2	44.7	0.0	99.5	0.4	0.1
13	3600	GRAHAM, A	KB	34	70.6	32.4	11.8	30.9	89.7	0.0	10.3	0.0
7	7140	ROBERTSON ED/VC C	7-8	160	73.8	91.9	83.8	76.7	0.0	100.0	0.0	0.0
9	7814	SIMPSON LIV CTR	KB	16	75.0	N.A.	68.8	0.0	0.0	100.0	0.0	0.0
6	7600	ANDERSON EVOC	8-9	45	75.6	87.1	84.4	54.5	13.9	13.9	72.3	0.0
11	7030	DRAKE EVOC	8	92	80.4	98.9	66.3	98.0	0.7	99.3	0.0	0.0
9	7270	MCCORLEY ED/VC C	7-8	165	80.6	51.9	90.9	44.9	0.0	100.0	0.0	0.0
14	3380	WOODSON STU/GLS	EVGEVOC	42	85.7	97.5	76.2	0.0	0.0	100.0	0.0	0.0
3	6670	COOLEY EVOC *	8	12	91.7	N.A.	33.3	91.7	0.0	100.0	0.0	0.0
14	7811	BOUSFIELD SP	KB	29	96.6	69.6	41.4	0.0	3.4	93.1	3.4	0.0
9	4860	HEINEFIDDE	KB	20	100.0	N.A.	70.0	0.0	25.0	60.0	15.0	0.0

Table 2: Comparing the Best (deciles 1 & 2) and the Worse (decile 10) Performing Elementary Schools, Class of 1982, Chicago Public Schools

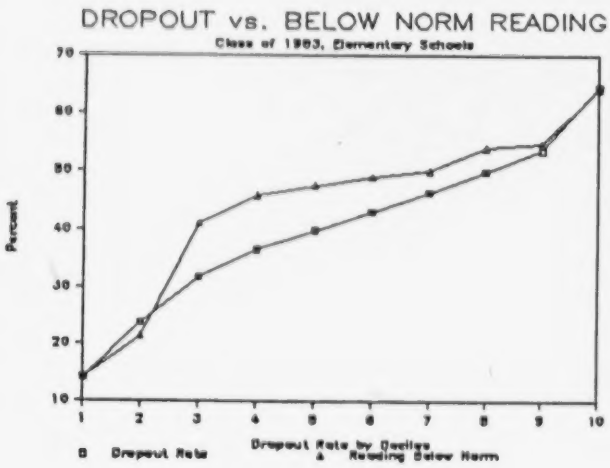
DIST UNIT	NAME	TYPE	ENROLL MENT	DROPOUT RATE	PERCENT BELOW NORMAL	PERCENT OVERAGE	PERCENT LOW INCOME	PERCENT WHITE	PERCENT BLACK	PERCENT HISPANIC	PERCENT OTHER
Best Performing Schools											
1	5980 SOLOMON	KB	23	0.0	10.0	8.7	0.4	71.3	8.6	4.8	15.3
18	6120 SUTHERLAND	KB	28	0.0	0.0	10.7	1.8	93.6	3.6	2.1	0.7
11	5400 PERSHING MAG	KB	18	5.6	0.0	5.6	4.8	2.6	94.8	0.7	1.9
2	5630 ROGERS	KB	64	6.3	8.1	4.7	1.3	76.4	3.3	4.5	15.8
15	2980 DAMES	KB	94	6.4	5.4	20.2	3.1	96.3	0.0	3.0	0.7
1	6470 WILDWOOD	KB	13	7.7	0.0	0.0	1.0	94.8	0.0	1.5	3.7
20	3580 GUSSOI	KB	39	7.7	5.3	7.7	3.2	84.6	1.7	10.5	3.2
12	2780 CHRISTOPHER	KB	12	8.3	66.7	50.0	0.0	0.0	100.0	0.0	0.0
18	4240 KELLOGG	KB	19	10.5	21.1	21.1	10.9	57.9	79.3	19.9	0.4
1	2950 DONCEEN	KB	36	11.1	11.1	8.3	2.8	95.9	0.3	0.7	3.1
1	5510 PRUSSING	KB	43	11.6	9.3	9.3	4.2	91.9	2.5	3.5	2.1
1	5120 NORWOOD PARK	KB	17	11.8	5.9	11.8	2.1	97.9	0.0	0.5	1.6
15	4120 HURLEY	KB	33	12.1	6.1	9.1	9.6	90.4	5.3	3.7	0.6
15	6030 STEVENSON	KB	95	12.6	6.3	12.6	5.3	84.9	13.8	0.5	0.8
1	3510 GARVEY	KB	60	13.3	5.3	3.3	2.1	89.0	7.2	1.9	1.9
2	4300 KOLMER	KB	52	13.5	22.4	21.2	11.3	64.0	4.7	16.9	14.4
18	2150 BARNARD	KB	44	13.6	46.3	22.7	25.2	14.8	84.6	0.2	0.4
20	6360 WASHINGTON SCH	KB	58	13.8	6.9	10.3	1.4	89.2	7.2	3.6	0.0
19	2020 ADDAMS	KB	50	14.0	40.0	10.0	2.9	90.0	0.0	8.6	1.4
1	5200 ORIOLE PARK	KB	28	14.3	7.1	10.7	2.0	94.6	3.4	0.3	1.7
1	5190 OHAHAM	KB	48	14.6	8.5	4.2	2.4	96.7	0.7	1.4	1.2
15	2650 CARROLL	KB	47	14.9	8.5	23.4	3.5	96.0	0.0	3.2	0.8
1	3170 EDGEBROOK	KB	20	15.0	0.0	0.0	1.7	96.9	0.0	0.5	2.6
12	3081 DORE BR	KB	20	15.0	10.0	15.0	0.0	95.0	0.0	5.0	0.0
2	4180 JAMIESON	KB	72	15.3	11.3	18.1	4.6	83.1	0.0	5.3	11.6
2	2320 FOCHE	KB	76	15.8	9.2	9.2	2.0	88.4	0.0	1.7	9.9
1	4010 HITCH	KB	57	15.8	8.9	5.3	2.2	96.9	0.0	1.0	2.1
17	3040 DIXON	KB	130	16.9	20.3	26.2	20.7	0.0	100.0	0.0	0.0
1	5410 PETERSON	KB	46	17.4	16.7	17.4	2.7	82.6	0.0	2.2	15.2
1	3150 EBINGER	KB	57	17.5	12.7	8.8	3.2	92.3	6.9	0.0	0.8
19	7860 BLACK MAG	4-8	34	17.6	11.8	2.9	33.5	31.8	51.8	9.8	6.6
4	4560 LYON	KB	33	18.2	16.1	3.0	33.6	86.1	12.2	1.1	0.6
9	6740 DETT	KB	37	18.9	22.2	5.4	91.9	0.0	100.0	0.0	0.0
12	3200 EDWARDS	KB	62	19.4	15.3	3.2	7.2	83.0	1.3	15.1	0.6
20	2790 CLAY	KB	54	20.4	28.8	20.4	4.0	88.4	5.9	5.7	0.0
12	3710 HALE	KB	63	20.6	5.4	19.0	4.9	91.1	5.5	2.6	0.8
14	5560 RAY	KB	48	20.8	19.6	4.2	11.0	40.1	49.4	3.0	7.5
2	6130 SWIFT	KB	43	20.9	43.6	27.9	35.1	40.1	27.1	16.4	16.4
12	3681 FLEMING BR	KB	19	21.1	11.1	31.6	0.0	91.3	0.0	6.3	2.4
15	5290 OHEN	KB	19	21.1	27.8	31.6	1.7	91.5	6.0	1.3	1.2
18	8030 WACKER	KB	38	21.1	16.2	21.1	14.1	0.0	100.0	0.0	0.0
1	5260 PALMER	KB	52	21.2	13.7	11.5	4.4	86.0	4.8	4.2	5.0
3	4480 LINCOLN	KB	14	21.4	0.0	14.3	4.4	78.5	12.2	5.0	4.3
1	5960 STEGER	KB	37	21.6	16.7	16.2	20.0	89.2	11.5	2.0	1.3
12	4340 KINZIE UPP *	7-8	120	21.7	9.3	14.2	11.2	94.4	2.4	2.8	0.4
11	6330 WARD	KB	23	21.7	45.0	26.1	32.4	14.5	45.6	26.6	13.3
4	3020 DEVER	KB	55	21.8	27.3	14.5	0.0	90.1	9.2	0.2	0.5
14	4260 NORTH EXPER	6-8	87	21.8	30.1	11.5	25.6	6.8	92.2	0.2	0.8
5	4150 IRVING PARK BR	KDDDKB	32	21.9	6.3	12.5	0.0	84.4	6.3	3.1	6.3
14	3780 HARTE	KB	73	21.9	24.3	9.6	9.9	34.4	59.0	1.4	5.2
2	8000 DISNEY MAGNET	UNGR	82	22.0	31.7	1.2	0.0	45.6	30.1	19.9	4.4
4	3620 GRAY	KB	63	22.2	14.3	4.8	6.8	95.9	0.0	2.8	1.3
8	3260 EVERETT	KB	27	22.2	22.2	22.2	27.1	84.1	0.0	14.7	1.2
2	2080 ARMSTRONG	3-6	45	22.2	7.1	8.9	9.2	77.7	4.5	4.5	13.3
2	5360 PEIRCE	KB	67	22.4	19.7	14.9	22.0	50.7	0.4	30.3	18.6
18	2820 CLISSOLD	KB	40	22.5	2.5	20.0	6.7	86.4	12.3	0.6	0.7
1	5690 SAUGANASH	KB	22	22.7	13.6	9.1	2.1	90.9	0.0	3.0	6.1
18	8090 JACKSON, M	KB	83	22.9	26.3	30.6	31.4	1.0	97.4	1.5	0.1
20	4100 CULLEN	KB	43	23.3	48.2	14.0	15.6	0.0	100.0	0.0	0.0
11	3700 HAINES	KB	64	23.4	24.1	17.2	59.6	0.7	63.0	0.4	35.9
12	6240 TWAIN	KB	64	23.4	8.2	14.1	8.1	90.7	2.2	4.8	2.3
1	2620 CANTY	KB	34	23.5	29.2	11.8	4.4	92.6	3.6	2.9	0.9
2	2810 CLINTON	KB	72	23.6	11.9	13.9	5.2	81.5	0.0	6.6	11.9
1	3280 FARNSWORTH	KB	46	23.9	4.3	15.2	3.1	92.5	4.9	2.1	0.5
12	6220 TOMTI	KB	50	24.0	26.5	6.0	8.6	87.8	3.0	6.9	2.3
12	5340 PECK	KB	69	24.6	14.7	18.8	7.8	96.5	0.0	2.0	1.5
18	4350 KERLING	KB	48	25.0	29.2	22.9	21.1	0.4	99.5	0.2	0.0
18	5420 GARVEY	KB	79	25.3	31.2	13.9	29.9	0.0	100.0	0.0	0.0
1	3180 EDISON *	KB	31	25.8	26.7	6.5	0.9	86.7	8.6	2.1	2.6
2	3950 HAIT	KB	54	25.9	31.3	24.1	16.3	73.1	2.6	10.8	13.5
11	5140 OAKLAND *	KB	34	26.5	41.9	32.4	0.0	0.0	97.1	0.0	2.9
20	6050 DUNNE	KB	97	26.8	38.9	12.4	26.2	0.0	99.9	0.1	0.0
1	2440 BUDLONG	KB	67	26.9	17.7	10.4	6.4	86.4	2.4	3.7	7.5
19	2280 BENNETT	KB	84	27.4	26.8	20.2	0.0	0.0	100.0	0.0	0.0
15	3140 EBERHART	KB	57	28.1	19.3	22.8	6.3	94.8	0.0	3.7	1.5
3	2270 BELL	KB	42	28.6	8.3	9.5	7.6	67.4	8.0	19.8	4.8

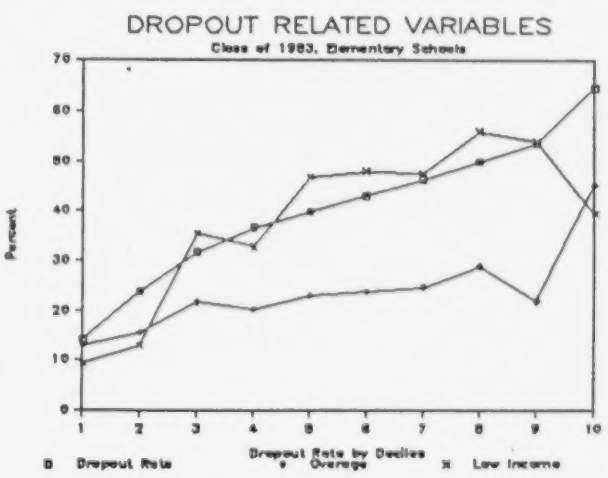
Returning briefly to the information on Table 1, it is important to stress several other conclusions. The schools were ordered from lowest to highest dropout rate to produce this chart, so the composite rate increases for each decile. However, it is significant to note the rapid increase in the dropout rate from the first to the second decile (higher by 9.6 points) and from the second to the third deciles (higher by 7.9 points). From the third to the ninth deciles, the increase is considerably smaller (average increase of 3.5 points). It is worth noting the sheer magnitude of the dropout problem in the Chicago Public Schools: the sixth, seventh, eighth, ninth, and tenth deciles of this sample (that is, one half of all the elementary schools analyzed in this study) have aggregated dropout rates of 43.1%, 46.4%, 49.9%, 53.5%, and in the highest decile, an astonishing 64.5% dropout rate!

Another noticeable finding comparing these deciles is the steady escalation of the number of students who are reading below normal. Indeed, only in the first and second deciles are the elementary schools successfully preparing a large proportion of students, measured in terms of the reading scores. These first and second deciles have 14.1% and 21.4% of their students reading below normal, while all the other deciles have at least 41.1% of their students testing below normal. The national norm is for 27% to be reading below normal. In fact, it is quite striking that the four worst achieving deciles (that is, 40% of the elementary schools in this sample) have *50% or more* of their students reading below normal!

Both the percent of overage students and the percent of students from low income families generally, but not uniformly, increase as we move from the first to the higher deciles (See Figure 1).

Figure 1

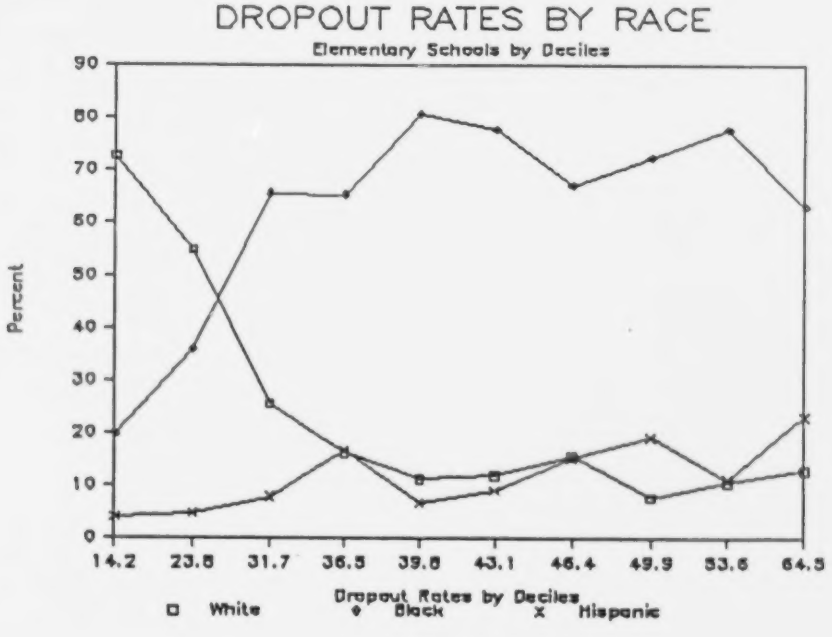




These two important factors are not as strongly related to the dropout rate as the percent of students reading below normal. This is particularly the case with the number of students within each decile who are overage. Here the contrast between the lowest and highest deciles is quite clear (13.0% overage in the first decile compared to 45.3% overage in the tenth decile), but the relationship is neither uniform nor linear. The percent overage increases to 15.6% and 21.7% in the second and third deciles respectively, but then decreases slightly to 20.2% in the fourth decile, increases in small steps through the following four deciles, but then decreases quite strikingly in the ninth decile, and finally doubles to 45.3%, as we have noted, in the final decile. A somewhat similar pattern is also found in the level of students from low income families. Again, the number of low income students is much greater in the worst achieving decile (39.5%) than in the first decile (9.4%), but the relationship is hardly consistent. Indeed, as we can see in Figure 1, the percent of students from low income families actually hovers at or above 50% in deciles 6 through 9, but drops in the tenth decile.

One last point needs to be discussed concerning Table 1. This concerns race and the dropout rate. Generally, though unevenly, the proportion of White students decreases as the dropout rate decreases. In contrast, the proportion of Blacks and Hispanics, while increasing somewhat, is unevenly related to the dropout rate. A few examples should show this clearly. The third and fourth deciles, for example, are 65.6% and 65.2% Black respectively; comparatively, the seventh and eighth deciles are 67.1% and 72.4% Black while nevertheless producing dropout rates about 10.0% greater. Also, it is important to point that the tenth decile, with a 64.5% dropout rate, is only 63.3% Black. The relationship between the percent Hispanic and the dropout rate is likewise uneven and hardly uniform indeed the proportion of Hispanics increases and decreases as the deciles change. As Figure 2 shows, the first two deciles are disproportionately White, but for deciles three through ten, the racial proportions vary only slightly.

Figure 2



These data are important and worthy of careful attention, but two further issues need to be addressed that cannot be answered by even careful examination of the information on Table 1. First, what is the precise relationship between the dropout rate and these other variables? What, in other words, is the relationship between reading scores, number of overage students, and low income students with the dropout rate? Which of these, together with the racial composition of these deciles, is most closely related to the dropout rate? And, what is the measurable relationship between these factors? Second, are the differences between the deciles, significant for the variables listed in Table 1 (percent reading below normal, low income, overage, White, Black, Hispanic, etc.)?

The first of these issues is addressed in Table 3, which shows the simple correlation coefficients between the variables shown in Table 1. This table shows the statistical relationship between the dropout rate, below normal reading scores, percent overage, number of low income students, and the racial composition of *the deciles* displayed in Table 1. It is important to stress that, with only ten cases to analyze, the significance level of the correlation coefficients is especially important. On this table the magnitudes of the coefficients seem to imply that there are very strong relationships between two variables. Good examples of this are the coefficients between median reading scores and percent White ($r = .668$, $p < .012$), or percent overage students with percent limited English students ($r = .616$, $p < .029$). However, in both these cases, the probability rating is above the minimum significance level of $p < .01$. This means that the apparent relationship between these factors is just as likely as to have occurred by chance as to actually reflect a meaningful relationship between the two variables. We have already noted the unevenness in the relationship between the percent Black and the dropout rate. The lack of a clear and unequivocal connection between the percent Black and the dropout rate is confirmed here by a the significance level that indicates that the relationship is likely to simply have occurred by chance.

Table 3

Table 3: Relationships Between Dropout Rates and Other Variables
By Deciles of Elementary Schools, Chicago Public Schools, 1977-1978

	Percent Reading Below Normal	Median Reading Score	Percent Overage	Percent Low Income	Percent Limited English	Percent White	Percent Black	Percent Hispanic	Percent Other
Dropout Rate	0.961 **	-0.889 **	0.862 *	0.802 *	0.510	-0.843 *	0.730	0.800 *	-0.761
Percent Reading Below Normal		-0.830 *	0.804 *	0.876 **	0.533	-0.950 **	0.059 *	0.776 *	-0.860 *
Median Reading Score			-0.948 **	-0.539	-0.560	0.668	-0.531	-0.774 *	0.589
Percent Overage				0.500	0.616	-0.606	-0.448	0.823 *	-0.618
Percent Low Income					0.278	-0.939 **	0.931 **	0.512	-0.825 *
Percent Limited English						-0.452	0.248	0.828 *	-0.193
Percent White							-0.967 **	-0.628	0.897 *
Percent Black								0.810	-0.831 *
Percent Hispanic									-0.550

n = 10

** $p < .001$
* $p < .01$

With this warning in mind, the results of Table 3 are nevertheless marked. First, the most important finding is that the dropout rate is most strongly related to the number of students reading below normal. Overall, the dropout rate is significantly correlated to below normal reading scores (r = .961), percent overage (r = .862), and number of low income students (r = .802). Additionally, the dropout rate is inversely related to percent White (r = -.843), and directly related to percent Black (r = .730) and percent Hispanic (r = .800). Second, the level of students reading in the bottom three stanines (the definition of below normal reading scores used here) is very strongly related to other factors, specifically the racial composition of the schools and the number of students from low income families and percent overage. The findings are again striking: the correlations between below normal reading scores and percent White (r = -.950), percent low income (r = .876), and percent overage (r = .804) are all very strong. In contrast, these other strong correlates of the dropout rate (percent overage and percent low income) are less strongly associated to the other variables listed in Table 1. Indeed, the percent of overage students which is quite strongly related to the dropout rate (r = .862) is strongly inter-correlated to reading scores, but is not associated in a statistically significant fashion to percent low income, limited English students, percent White, or percent Black, but is strongly correlated to the proportion of Hispanic students in each decile. This means that grade retention of students does not relate directly to whether the students come from low income homes, have limited English proficiency or are White or Black. The level of students from poverty families is positively and strongly related to below normal reading scores (r = .876), and correlated even more tightly to the racial composition of the deciles.

One last set of findings is important on Table 3. The association between race, the dropout rate, and other important determinants of the dropout rate deserves separate attention. What is most striking about the correlations between race and the dropout rate is that while the percent White and percent Hispanic are significantly (and quite strongly) correlated with the dropout rate, the percent Black is not. The Chicago Public School system largely serves Black students. They are, it is clear, disproportionately represented in the Chicago system. Because of this, there is little clear relationship between race and the dropout rate. Some elementary schools which were 100% Black during the period which we are analyzing performed very well in graduating eighth graders. Other elementary schools, which were also 100% Black during this period, graduated eighth graders who were inadequately perpared for high school work, and eventually dropped out of the school sytem. When the data are aggregated in this fashion (in deciles), the proportion of Blacks in each decile is not significantly related to the dropout rate. This confirms the findings in Table 1 and Figure 2: the uneven patterning between percent Black and the number who drop out suggests that there is no sustained relationship between the proportion of Blacks in most elementary schools in the Chicago Public School system and the ultimate dropout rate.

Whether the differences between deciles displayed on Table 1 are true and significant differences or have occurred simply by chance is addressed on Table 4. Table 4 provides the results of t-tests, a statistical technique used to establish whether the differences identified between different groups of observations (in this case, deciles) are significant, or the result of chance. The findings presented on Table 4 are the significance statements of the battery of t-tests that were performed on the data presented on Table 1.

Table 4: Results of t-tests Comparing Droprate Rates, Racial Composition, and Other Variables, Elementary Schools, Chicago Public School System, 1977-1978

Comparing Deciles	Dropout Rate	Below Normal Reading	Reading Scores	Average	Low Income	Limited English	Percent White	Percent Black	Percent Hispanic	High Level Teaching Experience	Low Level Teaching Experience
1 and 2	0.000	0.030	0.036	0.048	0.493	0.457	0.114	0.210	0.393	0.319	0.703
1 and 3	0.000	0.000	0.002	0.004	0.000	0.400	0.000	0.000	0.198	0.902	0.316
1 and 4	0.000	0.000	0.000	0.003	0.000	0.034	0.000	0.000	0.005	0.220	0.012
1 and 5	0.000	0.000	0.000	0.001	0.000	0.180	0.000	0.000	0.009	0.105	0.066
1 and 6	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.004	0.045	0.001
1 and 7	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.004	0.145	0.053
1 and 8	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.001	0.078	0.001
1 and 9	0.000	0.000	0.000	0.000	0.000	0.116	0.000	0.000	0.020	0.057	0.010
1 and 10	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.001	0.000	0.004	0.203
2 and 3	0.000	0.000	0.909	0.148	0.000	0.834	0.011	0.016	0.368	0.206	0.579
2 and 4	0.000	0.000	0.415	0.135	0.000	0.114	0.000	0.005	0.011	0.931	0.040
2 and 5	0.000	0.000	0.043	0.030	0.000	0.502	0.000	0.021	0.021	0.870	0.158
2 and 6	0.000	0.000	0.424	0.000	0.000	0.092	0.000	0.006	0.012	0.535	0.005
2 and 7	0.000	0.000	0.121	0.026	0.000	0.161	0.000	0.001	0.010	0.760	0.127
2 and 8	0.000	0.000	0.048	0.000	0.000	0.200	0.000	0.001	0.002	0.753	0.006
2 and 9	0.000	0.000	0.106	0.015	0.000	0.381	0.000	0.001	0.045	0.507	0.053
2 and 10	0.000	0.000	0.000	0.000	0.000	0.043	0.000	0.027	0.000	0.045	0.339
3 and 4	0.000	0.041	0.094	0.985	0.994	0.106	0.142	0.691	0.101	0.065	0.083
3 and 5	0.000	0.207	0.002	0.297	0.196	0.667	0.005	0.098	0.199	0.080	0.314
3 and 6	0.000	0.091	0.067	0.072	0.306	0.167	0.231	0.745	0.153	0.004	0.010
3 and 7	0.000	0.011	0.006	0.515	0.065	0.249	0.018	0.324	0.089	0.057	0.251
3 and 8	0.000	0.002	0.000	0.043	0.003	0.302	0.007	0.364	0.025	0.007	0.012
3 and 9	0.000	0.007	0.010	0.458	0.020	0.549	0.135	0.353	0.311	0.013	0.069
3 and 10	0.000	0.001	0.000	0.000	0.806	0.075	0.073	0.803	0.002	0.001	0.554
4 and 5	0.000	0.420	0.086	0.281	0.165	0.323	0.177	0.218	0.634	0.746	0.522
4 and 6	0.000	0.905	0.956	0.059	0.275	0.961	0.749	0.942	0.727	0.209	0.389
4 and 7	0.000	0.394	0.272	0.488	0.051	0.874	0.374	0.563	0.942	0.610	0.664
4 and 8	0.000	0.167	0.086	0.035	0.001	0.775	0.206	0.612	0.504	0.516	0.543
4 and 9	0.000	0.363	0.449	0.429	0.014	0.406	0.981	0.598	0.479	0.310	0.938
4 and 10	0.000	0.033	0.000	0.000	0.794	0.604	0.817	0.513	0.137	0.018	0.510
5 and 6	0.000	0.557	0.067	0.756	0.847	0.311	0.080	0.189	0.891	0.597	0.144
5 and 7	0.000	0.130	0.459	0.582	0.520	0.416	0.618	0.515	0.583	0.868	0.061
5 and 8	0.000	0.037	0.787	0.549	0.070	0.493	0.923	0.484	0.246	0.870	0.205
5 and 9	0.000	0.105	0.263	0.602	0.251	0.858	0.183	0.497	0.796	0.564	0.473
5 and 10	0.000	0.007	0.001	0.000	0.397	0.138	0.204	0.051	0.042	0.041	0.072
6 and 7	0.000	0.385	0.224	0.247	0.430	0.906	0.206	0.512	0.672	0.743	0.220
6 and 8	0.000	0.183	0.060	0.690	0.058	0.799	0.097	0.560	0.301	0.597	0.743
6 and 9	0.000	0.360	0.305	0.245	0.206	0.398	0.729	0.547	0.693	0.905	0.431
6 and 10	0.000	0.040	0.000	0.000	0.520	0.556	0.553	0.560	0.057	0.072	0.195
7 and 8	0.000	0.702	0.580	0.149	0.272	0.899	0.685	0.951	0.552	0.957	0.307
7 and 9	0.000	0.991	0.691	0.952	0.625	0.512	0.395	0.967	0.436	0.693	0.611
7 and 10	0.000	0.193	0.000	0.000	0.173	0.504	0.455	0.207	0.159	0.058	0.767
8 and 9	0.000	0.672	0.317	0.146	0.556	0.599	0.213	0.904	0.171	0.574	0.598
8 and 10	0.000	0.293	0.000	0.000	0.018	0.427	0.240	0.239	0.438	0.034	0.260
9 and 10	0.000	0.170	0.000	0.000	0.073	0.182	0.836	0.231	0.025	0.097	0.472

These significance tests provide a statement of what percent of the differences on selected variables between the deciles is caused by chance. An example is called for here. On the first line of findings in Table 4 (comparing deciles 1 and 2), the significance statement for the percent of low income students is p = .493. This means that 49.3% of the difference in the proportion of low income students in deciles 1 and 2 is calculated to have occurred by chance. In contrast, the difference in the percent of students reading below normal in deciles 1 and 2 has a probability of .030. This is to be interpreted as meaning that only 3% of the difference in the average number of students reading below normal in deciles 1 and 2 occurred by chance. All findings on Table 4 should be interpreted in this fashion. Statisticians have generally accepted these decision rules: the relationship between the two groups is significant only if 5% or less of the observed difference might have occurred by chance. In other words, if the probability statement on Table 4 is between .000 and .05, then it may be assumed that the differences between the deciles are statistically significant (i.e., they did not occur by chance). If, however, the probability statement on Table 4 is between .051 and .999 then the differences observed between deciles are likely to have occurred by chance.

The findings presented on Table 4 directly address the differences examined on Table 1. All possible comparisons are provided on this table. The findings presented here strongly confirm the conclusions derived from our discussion of Table 1. While it is useful to examine the differences between each of the deciles, it is best to concentrate on the results comparing the extremes in the data set, i.e., between the first and second deciles and the ninth and tenth deciles. Below normal reading scores are not only a powerful predictor of the dropout rate, but tend to be significantly different between the deciles of elementary schools. Table 4 shows that the proportion of below normal readers observed in deciles 1 and 2 is significantly dissimilar from the level of below normal reading scores in deciles 9 and 10. Indeed, on this one important variable, the best performing deciles have significantly different levels of students reading below normal than all other deciles. (See Figure 1.) Additionally, with only one exception, deciles 9 and 10 also have significantly different levels (and higher ones) of students reading below normal than all other deciles. (The only exception is the finding between decile 4 and decile 9.) The findings concerning the level of overage and low income students generally conform to this pattern. The best achieving deciles show significant differences in the number of overage and low income students when compared to the ninth and tenth deciles.

Probably the most important set of findings on Table 4 concerns the racial composition of the deciles. It is important to recall that the relative proportion of White, Black, and Hispanic students did not evenly and uniformly correlate to the dropout rate. The percent White decreased sharply from the best achieving deciles (1 and 2) to the poorer achieving deciles but there was a great deal of uneveness comparing deciles three through ten. A somewhat opposite pattern was to be observed for the proportion of Hispanic students in the deciles. Hispanics were virtually missing from the two highest achieving deciles,

but again there was a clear lack of uniform increase of the number of Hispanic students in deciles three through ten. Blacks were also underrepresented in deciles one and two (only 6.0% of all Blacks attended the 76 best achieving schools), but were proportionately represented in deciles three through ten. Thus, there was no statistically significant relationship between the number of Black students and the dropout rate. These findings are confirmed in the t-tests presented on Table 4. There are significant differences in the number of White, Black, and Hispanic students between deciles 1 and 2. This is particularly the case with the proportion of Black students across the various deciles. Only the very best and very worst achieving deciles show true and significant differences for the percent Black. The other deciles (three through eight) show no significant differences in terms of the number of Black students who attended elementary schools in these deciles. This is also generally replicated for the proportion of White and Hispanic students in these deciles as well.

Some of the basic findings of this study are obvious from the analysis presented in this section. Assessing the dropout picture from the perspective of Chicago elementary schools provides a portrait of extreme differences between the elementary schools. Some elementary schools produce 100% or nearly 100% success ratios (the percent of eventual high school graduates of the eighth grade graduating class); other elementary schools primarily produce students who are unsuccessful in their high schools and drop out. The attributed elementary school outcomes vary from a 100% graduation rate to a 100% dropout rate.

Second, below normal reading scores is the most closely associated variable with the dropout rate. In some elementary schools, students are adequately prepared to do high school work, and most graduate from the Chicago Public School System. However, 80 percent of the elementary schools do not adequately prepare their eighth grade graduates for more advanced academic work, assuring that large numbers of these students will drop out of the school system before graduating from high school.

Third, the proportion of students in an elementary school who are overage or from poverty impacted families is also strongly related to the dropout rate. As the percentage of overage and low income students attending an elementary school increases, so too does the ultimate dropout rate. And, significantly, the level of poor and overage students is highly correlated with the percent of students reading below normal. These factors, all of which detract from the likelihood that a student will graduate from the school system, compound one another.

And fourth, race and the dropout rate are related but not as clearly as one might expect. Predominantly White elementary schools tend to produce high proportions of eventual graduates from the Chicago Public School System. Those elementary schools that are heavily populated by Hispanic students are much less likely to yield eighth graders who will successfully achieve a high school diploma. However, the percent of Black students in an elementary school *does not significantly affect the dropout rate*. There are all Black elementary

schools which successfully prepare their students for high school work and produce large numbers of high school graduates. Other predominantly Black elementary schools are much less successful. The percent of Black students in an elementary school is not sufficient to predict the eventual success or failure of the students in that elementary school.

III. An Ethnographic Study of Four Matched Pairs of Urban High Schools

The second expansion of the original dropout study addressed the observed differences in dropout rates between high schools which received comparable entering freshman classes. In these schools, the characteristics of the entering students were similar, but dropout rates varied by ten percentage points or more.

Eight Chicago high schools were selected for in-depth, ethnographic investigation. The focus of this research was to determine internal factors that affected the dropout rate in each high school. The schools were grouped into four matched pairs. The characteristics of the entering students at the schools in each pair were quite similar, but the schools had significantly different dropout rates.

Schools were matched on the basis of reading scores, age distribution, race, and the level of poverty. Reading score data were collected particularly to provide a measure of readiness for high school work. Analysis of this data showed that the dropout rate for the classes of 1982, 1983, and 1984 was strongly associated with both below normal reading scores and high numbers of students entering high school overage. The dropout rate was less strongly correlated with the racial composition of the student body or the level of poverty of the neighborhood in which the school was situated. Most importantly, statistical analysis revealed that of the two -- below average reading scores and percentage overage -- poor reading scores were much more strongly associated with the rate of dropping out from Chicago high schools. The percentage of students overage remains very important, but it is the inability to perform at high school academic levels that is most closely associated with high rates of dropouts from Chicago public high schools. The level of association between reading scores and overage students and the dropout rate is clear, linear, and quite striking (in a regression where both of these independent variables were entered into the equation, they explained over 80% of the variance of the dropout rate). Despite this, there were clear differences in the dropout rates between high schools that the statistical analysis was unable to explain. Some schools had higher than expected dropout rates, and others, with similar students, had lower than expected rates. It was apparent that in these high schools, where there seemed to be something about the schools that affected the dropout rate, on-site ethnographic observation and analysis was appropriate.

The first task was to identify reasonably matched pairs of Chicago high schools in which to do comparative ethnographic research. The aim was not to find schools that were alike in all important

respects, but to find pairs of schools in which dropout rates differed, but the student population was similar in terms of reading scores, age structure, race, and poverty level. The question was whether the difference in dropout rates might have occurred by chance or was statistically significant. Since the unit of analysis was the individual high school, regression analysis was employed, and residuals of these schools on the important variables were examined. These variables were reading scores, percent overage, and the combination of both of these factors.

The regression analysis isolated a number of different sets of schools in which the student bodies were relatively well matched on reading scores, percentage of overage students, racial composition and a community poverty index. Eight sets of schools were presented to the Chicago Board of Education. Since the goal of the study was to determine why dropout rates differed for the Classes of 1982 - 1984, it was deemed important to have some continuity of program and administration in the selected schools for the eight year period from 1978 through the present. With the assistance of Board officials, four pairs of schools were selected: Washington and Hubbard, Bowen and Wells, Collins and DuSable, and Westinghouse and Simeon.

The dropout rates for the Class of 1982 in the four pairs of schools ranged from 22.1% to 58.5%. Table 5 shows the variables on which the schools in each pair were matched and the dropout rate for the class of 1982.

Table 5

CHARACTERISTICS ON WHICH THE PAIRS OF SCHOOLS WERE MATCHED

Class of 1982

SCHOOL	% NORMAL READING	PERCENT OVERAGE	POVERTY RATE	RACIAL COMPOSITION Wh.	Bl.	His.	As.	DROPOUT RATE
DuSable	27.7	36.8	77.9	0.0	99.8	0.0	0.0	58.5
Collins	26.1	33.4	65.8	0.0	99.8	0.0	0.0	48.1
Wells	30.8	34.9	40.3	12.1	25.8	61.7	0.0	55.6
Bowen	30.9	32.5	23.6	1.7	58.7	38.7	0.1	47.7
Hubbard	68.0	22.6	4.7	85.3	2.9	9.7	1.2	40.4
Washington	71.0	19.8	4.2	83.5	0.3	13.8	0.8	23.5
Simeon	75.8	20.2	46.9	0.0	100.0	0.0	0.0	34.1
Westinghouse	85.0	13.0	64.0	0.2	99.8	0.0	0.0	22.1

Figure 3 illustrates the relationship between reading scores and dropout rates in the four pairs of schools in the study. While the reading scores in each pair are similar, dropout rates are significantly different in each pair of schools. The slope line represents the expected dropout rate. In each pair, one school is above the line (has a higher than expected dropout rate) and one is below it.

Figure 3

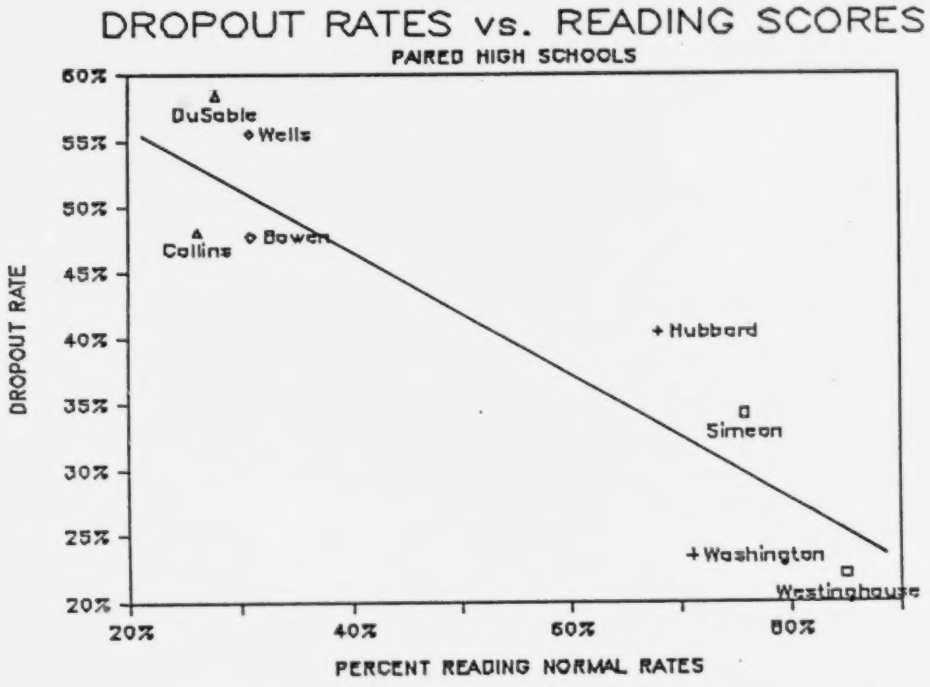


Table 6 presents the results of the regression analysis for the four selected pairs of schools. The dependent variable (the factor to be explained) in all cases was the dropout rate for Chicago high schools. The residuals presented here are measured in increments of standard deviations from the mean (or average) of the variable in question (either percentage reading below average, percentage overage, or a combination of these factors). The calculation and measurement of standard deviations is one way to understand the distribution of one variable. From the mean of the sample, one standard deviation covers 66.7% of all cases (33.3% above the mean and 33.3% below); the second standard deviation covers all but about 4% of the cases. The results presented on Table 6 provide us with a measure of the differences between these Chicago high schools on these factors. Furthermore, the results here are directly comparable and the effects of below normal reading scores and percentage overage can be averaged to arrive at a combined residual.

Table 6

RESULTS OF RESIDUAL ANALYSIS, SELECTED CHICAGO HIGH SCHOOLS
Dependent Variable - Dropout Rate

SCHOOL	COMBINED RESIDUAL	BELOW NORMAL READING SCORES	PERCENT OVERAGE
DuSable	0.451	0.334	0.606
Collins	-0.309	-1.060	0.277
Wells	0.870	1.120	0.493
Bowen	-0.136	-0.098	-0.203
Hubbard	1.040	1.300	0.114
Washington	-1.330	-1.080	-1.620
Simeon	0.342	0.565	-0.380
Westinghouse	-0.668	-0.653	-0.958

N = 63

Table 6 indicates that there are significant differences between the schools chosen for ethnographic analysis in this study. The most important measure is the first column of results, the combined residual of both below normal reading scores and percent overage. In nearly every case, the difference in the residual for each paired school is a full standard deviation. In the case of DuSable and Collins, the difference is still substantial. Not surprisingly, the differences between each of these pairs of schools is greatest for below normal reading scores (where there is a full standard deviation between the schools in each pairing), but less so for the residual of percent overage entering students.

After the selection of the eight schools, permission to conduct the study was obtained from the eight principals in an initial interview with each. Four ethnographers, one for each pair of schools, conducted the research in the schools.

The study was conducted during March, April and May of 1986. Each ethnographer spent a total of eight weeks in one pair of schools. The ethnographers alternated between the two schools of their pairs in two-week observation intervals.

There were three main components to the ethnographic study: interviews with a random sample of teachers, students and administrative staff; structured and informal observations in the school; and the collection of statistical data and printed information.

First, in order to insure some comparability among the pairs of schools, it was decided to conduct extensive interviews with a

stratified random sample of students, teachers and other staff in each school. These interviews covered a wide range of topics, some drawn from the "effective schools" literature (for a discussion of the relationship of the findings of this study and the effective schools literature, see Hess, *et al.*, 1986, pp. 7-12). Questions were designed to elicit information and opinions about such things as the curriculum, school policies on attendance, failure rates, promotion, discipline, management style and leadership of the principal, the general atmosphere for learning, frustrations and rewards in teaching, and the perceived "good" and "bad" things about each school.

Stratified random samples of 20 teachers and 20 students from each school were selected. In each school five math, five English and 10 teachers from other departments were chosen randomly from personnel lists provided by the school. With the assistance of the programmer, six freshmen, six sophomores, four juniors and four seniors were also randomly selected for interviews in each school. Finally, the principal, the building engineer, and three other administrative staff (such as assistant principal, discipline officer, attendance officer, guidance counselor or programmer) were interviewed in each school.

The second component to the ethnographic study was structured and informal observation in the schools. In the structured observations, ethnographers sat in 20 classes in each school. Ten of the classes were taught by teachers interviewed for the study. These classroom observations, thus, not only provided data on what went on in the classrooms, but also served as a check on information provided by teachers in interviews. The ethnographers observed teaching methods, time spent by the teacher on various tasks, discipline in the classroom, activities of students, and actions taken by teachers in regard to cuts, student tardiness and other disciplinary problems.

The ethnographers spent the entire school day in the school. When they were not interviewing or observing classes, they conducted informal observations and conversations in the lunchrooms, halls, libraries, and teacher lounges and offices. These informal observations and conversations often provided important insights into what were the real issues and concerns in a school, as well as providing a check on how closely what people said corresponded to what they did.

Finally, the ethnographers collected data from the individual schools on course offerings, attendance policies, disciplinary actions, failure rates, promotional policies, staff positions, and the attendance, failure, and discipline records for the sampled 20 students. North Central Association evaluation reports and other information regarding special dropout, attendance and recruitment programs were also obtained. The overall goal was to gather as much data as possible about all aspects of the schools which could conceivably have some bearing on the dropout rate.

In addition to the information collected in the schools, data were obtained from the Board of Education on attendance rates, failure rates, length of teacher tenure at each school, racial and ethnic composition of teachers and students, and the curriculum and courses for each of the eight schools.

A. Methodological Problems

Four major methodological problems were encountered in the study: the use of ethnographic methods to seek the reasons for a difference in dropout rates two to four years in the past; recent changes in the administrations in three of the eight schools; differences in ethnographer perceptions and interpretations of events in the pairs of schools; and differences among the pairs of schools which, in some instances, were greater than the differences between the higher and lower dropout schools in each pair.

The study sought explanations for differences in dropout rates between matched schools for the classes of 1982, 1983 and 1984. However, by its nature, the ethnographic study provided the best information about present conditions in the schools. It cannot be assumed that present conditions necessarily corresponded to those of two or more years ago. Indeed, three of the schools - Westinghouse, Hubbard and Collins - had new principals. In all three cases, the present administrations were considerably different from the previous ones. In order to overcome this problem, teachers and administrators were questioned in the formal interviews about past administrations and policies and about changes in the school during their tenure. Ethnographers in the three schools with recent principal changes also sought out information in informal conversations about conditions under previous principals. Whenever possible statistical data from the present and previous years (on attendance, failure rates, TAP scores, for example) were collected for comparison.

The different ethnographers had somewhat varying perceptions and foci in conducting the study. To insure that there was overall comparability, the same methodology was followed by all in selecting the samples, administering the questionnaires and carrying out the structured observations. The research team met weekly to share problems and findings. Although some differences among the resulting ethnographies were noted, the crucial differences for the study were those between schools in the matched pairs. Since the same ethnographer observed each school in a pair, ethnographer variation was thus reduced to a minimum and did not confound the comparative results. Beyond this problem, however, some important similarities were observed in all eight high schools.

Finally, differences among pairs of schools were greater in some instances than differences within a pair. When there were important differences between the four schools on the high end of the dropout scale and the four on the low end, this was pointed out in the analysis. For example, differences in attendance were more significant between the four highest dropout rate schools and the four with the lowest dropout rates than between the individual schools in each pair. The primary findings of this part of the research agenda are reported below.

B. Common Experiences of Chicago Public High Schools

Although this research was designed to discover differences between the matched pairs of high schools in the sample, the four ethnographers were struck by a set of similar conditions and experiences shared by students and teachers at all of the schools. This section focuses on those common features with an emphasis on ones that might be pertinent to dropping out of school. These elements include: the organization of the school day (instructional time and course schedules), the student experience (in the classroom, tardiness and cutting, individual attention and gangs), and common teacher characteristics (length of tenure, burnout, perceptions of students). The more striking uniformities included the following.

First, most students (77% of those in general high schools) were receiving 240 minutes a day, or less, of active instruction (six periods or less, excluding study halls). Very few students spent more than 280 minutes (seven 40 minute periods) in instructional classrooms. This was true in all of the eight sample schools despite state law requiring 300 instructional minutes a day for secondary school students.

Second, among students in all of the sample schools, there was a widespread "culture of cutting." Students would selectively cut some of their classes, most often those early in the morning, at the end of the day or those which they did not like.

Third, students received very little individual attention, primarily due to the large class size (average enrollment of 28 to 30 students compared with a state average of 20.3) and the large number of students assigned to each guidance counselor (up to 600).

The basic teaching approach was the same across all the schools. Question and answer discussions and individual supervision of students were the predominant forms. The ethnographers observed numerous very skilled and dedicated teachers. However, the range of teachers and methods used was much greater within each school than between any set of schools. There was a difference among schools in the amount of classroom time teachers spent in various methods of teaching and interacting with students.

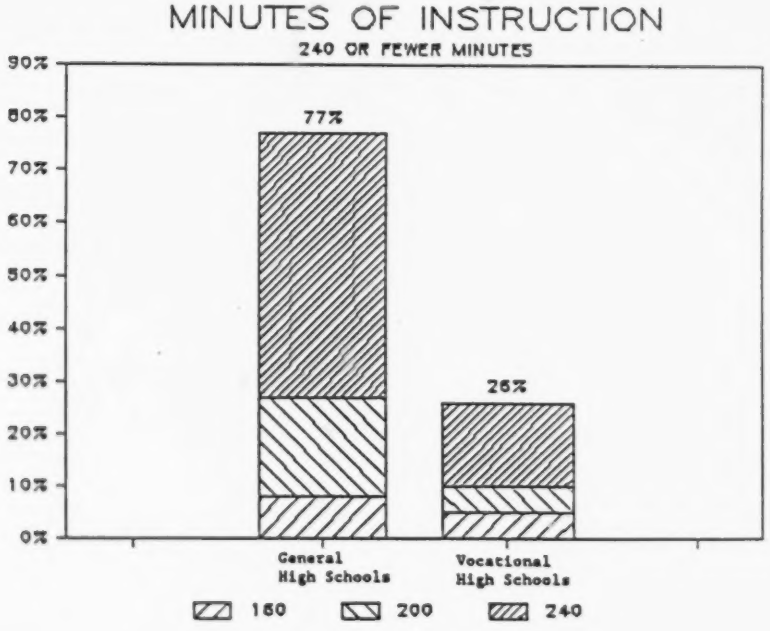
Finally, many teachers complained of "burnout" or of great frustration with the system. Those who had been teaching 10 years or more (the majority) were most demoralized. Teachers attributed this burnout to a lack of support from the Board and school administrators and to a perceived decline in student perparation and motivation, particularly in the past five or six years.

I. ORGANIZATION OF THE SCHOOL DAY

State law requires that students must have earned a minimum of 18 credits (16 in academic or vocational courses and four physical education courses worth one half credit each) in order to graduate. The state also requires that students receive five clock-hours (300 minutes)

of instruction a day. This second requirement is not adequately met in Chicago public high schools. In all of the sample high schools, class periods lasted 40 minutes followed by four minutes of passing time. Although some students took seven or even eight periods of course work, more than three quarters (77%) of the students interviewed at the general high schools were enrolled in six or fewer courses including Physical Education, and were assigned one or two study halls and a lunch period (see Table 7). Study halls, but not lunch periods, can be counted as part of the required 300 minutes of instruction. Usually, a student who was taking six courses was receiving 240 minutes of actual instruction time a day (including P.E.) plus an additional 40 minutes in study hall. One taking five courses was getting only 200 minutes of course instruction, but might be assigned two study halls. By comparison, most students (75%) in the vocational high schools were scheduled for seven or more periods. (See Figure 4.)

Figure 4



Thus, in order to insure that students were in school the required 300 minutes, they were generally assigned one or two additional study halls a day. Students were often given a fictional study hall as either their first or last class of the day. Often these study halls were assigned to non-existant rooms; students were not expected to attend these fictional studies. (The ethnographer, searching for students to be interviewed at DuSable, spent three days asking "Where is Room 185?" before he discovered there was no such room in use.) One school reported 700 students scheduled for a non-existant afternoon study hall. According to state officials, these fictional study halls are in

violation of the law and endanger the school's recognition and qualification for state aid. A number of students at another school had two study halls back to back in the afternoon. Such scheduling encouraged students to leave the school during these periods; frequently, they did not return for later classes.

Table 7

NUMBERS OF COURSES TAKEN BY STUDENTS INTERVIEWED IN EIGHT PAIRED SCHOOLS

No. Courses*	Instruct. Time	Percent Students General High Schools	Percent Students Vocational High Schools
4	160	8%	5%
5	200	19%	5%
6	240	50%	16%
7	280	21%	63%
8	320	1%	12%
N=162		100%	100%

*Study halls not counted as courses.

Students in the two vocational schools took the academic subjects required for graduation plus two periods of shop or vocational subjects in their freshman or sophomore years. As juniors and seniors they took either a four period shop major or a variety of other vocational or business courses depending on the major. Vocational students, thus, generally took seven or eight periods of classes a day (including P.E.) and received 280 to 320 minutes of instructional time. They fared better than students in the general high schools as far as instructional time. Seventy-five percent of the students interviewed were taking seven or more periods of course work a day, compared to only 22% of the general high school students. At Simeon Vocational, many students were also assigned a study hall. Westinghouse did not have study halls, but students were assigned a "library" period at the beginning or end of the day. They were not expected to attend school during those periods, although the library was open in the morning for those who wished to come. For students with less than 300 scheduled minutes, such unattended library periods also violate state requirements.

At every school, there was a ten minute division period after either second or fourth period. During this time students reported to their division teachers for attendance and announcements. In most cases, students were supposed to remain with the same division teacher throughout high school. When this system worked, teachers got to know

their division students quite well since division provided an opportunity to talk with them and counsel them informally. In most schools, division teachers reported that they called the homes of absent students. Some teachers reported developing a working relationship, even friendship, with families of their division students. This system did not work as well in the schools with the highest dropout rates where divisions were frequently consolidated due to the loss of students. In such schools, students might get shuffled to new division teachers a number of times during their high school careers.

While study halls could conceivably be a productive part of a student's day, allowing him or her time to complete assignments or work on homework, in reality they never were. All ethnographers found the study halls they observed to be noisy, crowded and frequently under the control of the students rather than the supervising teacher. In one study hall, students moved their desks in clusters to the back of the room where they talked throughout the period with friends. The study hall room was badly marked with graffiti on the desks and walls. In another school, study halls (three or four classes with their respective teachers) were held in the lunchroom before and after lunch periods. The noise level was at a constant din. The study halls held after lunch were particularly bad because there was food and trash on the floors, and tables were sticky with the spills from lunch. One ethnographer was constantly frustrated because none of the students she wanted to interview was ever in the assigned study hall. The teachers could only show her their attendance books with students repeatedly marked absent for study hall. At best, under such conditions, study halls were "holding pens" where teachers and students wasted time that could have been better spent elsewhere; at worst, they were disruptive areas in the school where discipline was lacking and control of the room rested in student hands.

In summary, although students, except those in work study programs, were scheduled to be at school for eight or nine periods a day, most took only five to seven periods of course work (200 to 280 minutes a day). Their schedules were rounded out with a lunch period and one or more real or fictional study halls. Students in vocational schools fared better than students in general high schools. Seventy-five percent of vocational students were in class seven or more periods a day (at least 280 minutes a day). Only 22% of the general high school students in the sample had 280 or more minutes of instructional time a day. Wells Academy was better than the other sample high schools in this respect. No student was taking less than six courses, and 40% were enrolled in seven or more classes a day. Some of these periods were tutoring sessions.

Such lax scheduling, along with restrictions on the number of courses students are allowed to take, dramatically shortchanged Chicago high school students. Further, this scheduling communicated to students that school is not a serious enterprise, that their time is not important, and that they do not have to be present when they are scheduled to be. Such training will not make graduates responsible citizens or desired employees.

II. ATTENDANCE: THE "CULTURE OF CUTTING"

In every school, the ethnographers found among students a shared "culture of cutting," that is, an attitude that it was not a serious offense to skip out on a class once in a while or even frequently. "Everybody does it," students repeatedly stated in interviews. (Ethnographers were primarily meeting better attending students; chronic truants were not very accessible to school-based observers.) Part of the "culture of cutting" is a selective attendance of classes, "smorgasbord cutting." Students generally cut the hardest or least liked classes. Early morning classes and those at the end of the day were less frequently attended. Frequent cutters often checked into Division and a few classes in the middle of the day, skipping the rest.

Teachers in every school cited cutting (and attendance) as a problem. Although the incidence of cutting did vary somewhat among schools, there was no consistent pattern of it between paired higher or lower dropout schools. Some schools had more severe penalties, but even in those where students were barred from class after a certain number of cuts, and parents were called in, or where repeated cutting earned temporary suspension from school, these policies appeared to have little effect on the overall rate of cutting or on the chronic cutter. In fact, most such punishments merely gave official sanction to the very action being punished: not attending class.

When asked if they had ever cut class, more than half the students admitted cutting. Ironically, the schools where fewest students admitted to cutting, the ethnographers noted the largest numbers of students in the halls during class time. Reasons students gave for cutting class included: tiredness at the end of the day, not being prepared for class, or needing to go home early for some personal errand or business. Some admitted they just did not feel like going to class. Asked why they thought other students cut, the majority replied "to hang out with their friends," or "because they don't feel like going." At all of the schools, students reported there were places where they could hide while cutting -- stairwells, the lunchroom, the social room, the halls, the gym, even the discipline room. In several of the schools, students left and re-entered at will through doors locked on the outside but unguarded on the inside. Returning students simply banged on the doors until a passing student opened them.

Tardiness, a problem related to cutting, was found to varying degrees at all schools. In the school where tardiness was most tightly controlled, students literally ran for their classrooms when the bell rang. At that school, teachers could lock tardy students out and were supossed to write up tardy slips on students. At schools where rules concerning tardiness were most laxly enforced, groups of students congregated in the halls for ten or 15 minutes, or more, after the bell had rung. They would saunter late into those classes in which the teachers did not enforce rules for tardiness. Effectively, these students were reducing their classroom exposure by 25% to 38%. Sometimes the line between tardiness and cutting was quite fine.

The end result of cutting, particularly if it is more than occasional, is that the student falls behind. Since one of the reasons students frequently cited for cutting was that they were not prepared for the class, cutting became a cycle of falling behind, skipping class because of uncompleted work, and consequently falling farther behind. Frequently, the end result was that the student failed the class for non-attendance. Many teachers reported that a large percentage of their failures were attendance related. Multiple failures was one of the reasons cited by both teachers and students for students dropping out. One ethnographer saw a pattern in cutting, failures and the level of the class. Students in Honors classes cut and failed less than students in Regular level classes. Students in Basic and Essential classes (i.e., classes ranked below grade level) had higher rates of both cutting and failures than those in Regular classes. Another ethnographer noted that teachers eventually fell in with the "culture of cutting." She noted that at the beginning of the year teachers reported they had been poised to solve the cutting issue; new policies were made and approved. Gradually, as students began to test them, the enforcement of the rules disintegrated. By spring the students were observed to be in control of their class attendance, especially after Division. The end result was that teachers resorted to failing students for lack of attendance.

In summary, students at all the schools selectively cut class. Cutting and tardiness were better controlled at some schools than others. All schools had rules and policies on the books which were designed to curb cutting and tardiness. In most, a student could be marked with a cut after a certain number of tardy slips. Students who cut repeatedly could be sent to in-house suspension, detention or even suspended from school for a few days. A student with a certain number of cuts could be barred from class until a parent conference was held. All such punishments give official sanction to missing classes, the aim of cutting in the first place. With the exception of detention, such punishments are simply "sanctioned cutting."

However, those schools where cutting was most effectively limited apeared to be those in which the administration was firmest in insisting that teachers and aides conscientiously fulfill hall monitoring duties, that teachers report class cutters to the attendance office or to the counselors, and that teachers call the homes of students who cut class. Schools where policies on cutting and tardiness were most persistently and consistently applied appeared to be most successful in containing them.

III. ONE ON ONE: INDIVIDUAL ATTENTION FOR STUDENTS

The average student received very little individual attention each day. Even in a class where the teacher was supervising students individually, a student could not expect to get more than a minute or two of undivided attention in a class of 25 to 30 students. On an average day, a student received less than ten minutes of personal attention from teachers in his/her classes. Only if the student had cultivated a more personal and informal relationship with a teacher or counselor, or had gotten in trouble, would he or she be likely to have any more individual attention from an adult at the school. One perceptive student stated that

she had been having personal problems at one point and had begun cutting class in order to receive more adult attention. Only then did she get the attention she needed.

Teachers stressed the need of students for individual attention. In particular, those in schools with lower income students and the highest dropout rates, brought up this point in their comments. Many teachers felt they were called upon to "parent" as well as to teach students. While some resented this role, most said they enjoyed it. A number of teachers listed being parent, role model and "just treating students as human beings" as the most important things they did during a school day. One teacher said he patted students on the shoulder a lot because they seemed to need the attention and enjoy the contact. Another stated that, in her division, four or five students would always sit on a ledge near her as though they needed the physical closeness.

Students reciprocated teacher opinions in answer to questions concerning their favorite and least favorite classes. It was striking that in the four schools which were high on the dropout scale (DuSable, Collins, Wells and Bowen) students almost unanimously replied that it was the teacher, not the subject matter, who determined whether a class was "best" or "worst." Students in the four schools with fewer dropouts were more likely to answer that it was the subject, difficulty, or degree of interest that made a course most or least liked.

One of the frequently voiced teacher complaints was that classes contained too many students. At the same time they felt students were entering school less prepared and in greater need of individual attention. The elimination of Basic and Essential level courses in response to a newly adopted Board of Education policy was commonly criticized. Several teachers pointed out that not only had putting all students into Regular level classes made it harder for those without the necessary skills, but that those students also received less individual attention. Under the old regulations Basic and Essential classes were permitted a maximum of 25 students instead of 28.

Students also had only a limited amount of time with counselors and other staff unless they were in Special Education or another special program. Most schools in the sample had four or five counselors for 1,000 to 2,000 students. Counselors were expected to help students plan their programs, apply for college or other training programs, and counsel those with problems. In addition, they were often expected to help with attendance and discipline problems, call parents for conferences, and perform other non-interactive tasks. Consequently a number of students in the interview sample had not met with their counselor during the entire year. Counselors complained that the ordinary, quiet student often got lost in the shuffle.

More individual counseling for those students with multiple failures, attendance and discipline problems was often recommended when staff were asked what could be done to reduce the dropout rate. Early intervention, with more individual attention at the first sign of a problem, was stressed.

IV. GANGS: THE COMPETITION

The majority of students interviewed reported that gang members attended their schools. Although some complained that recruitment went on in the lunchroom or that gang members initiated fights and shoving matches just outside the school doors, many took the attitude, "If you don't bother them, they won't bother you in the school." However, in the four schools on the higher end of the dropout scale (DuSable, Collins, Wells and Bowen), gangs appeared to have a much stronger influence among students. Both teachers and students at these schools felt that involvement with gangs was a major "reason" for students dropping out of school.

While the area outside the building at these higher dropout schools was often under the control of gangs, at only one school (DuSable) did students and teachers complain of gang violence and open disruption of the school's operation. At DuSable, where outsiders gained entrance easily and roamed the halls, the third floor was described as under the control of gangs. But at six of the eight sites, students rated their schools as "very safe" to "moderately safe." In all four of the schools on the low end of the dropout scale (Hubbard, Washington, Westinghouse and Simeon), students and teachers deemed the inside of the buildings to be very safe.

Remarkably, teachers at *all* schools, regardless of the perceived safety, felt the students at their own school were "basically good kids" or "the quiet, sweet ones." They were contrasted to students at "really tough schools" elsewhere. The long tenure of teachers at most schools could attest to the fact that the schools were generally perceived as internally safe.

To combat gang problems, schools had policies prohibiting the display of gang symbols and the wearing of gang colors in the building. Students wearing gang colors were sometimes sent home to change; hats, earrings and other gang symbols, if worn at school, were sometimes confiscated. Nevertheless, there was gang graffiti at most schools. The ethnographers noted students drawing gang symbols or wearing gang emblems, evidence, albeit usually quiet, of a gang presence in the schools. The sample schools, with some exceptions, did seem to provide a haven for students from the more violent forms of gang activity.

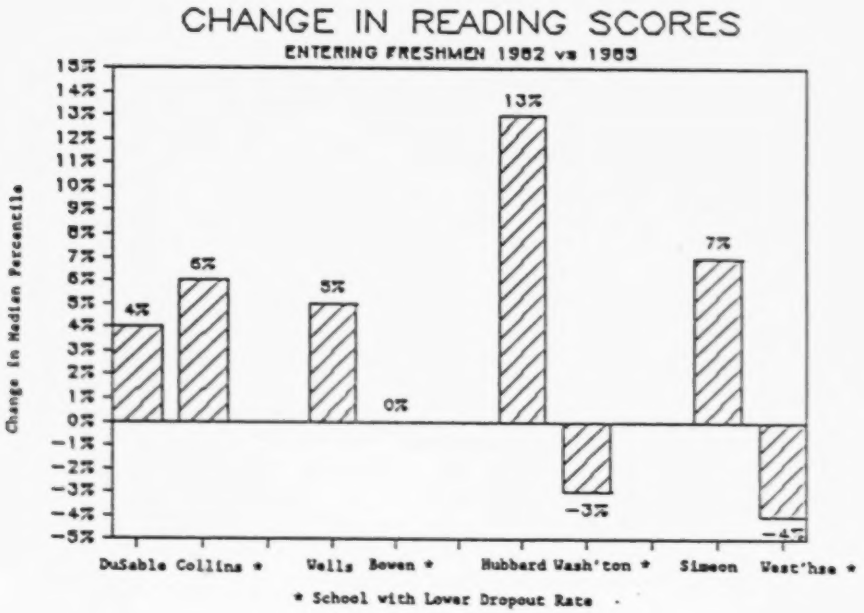
V. TEACHER SIMILIARITIES AMONG THE SCHOOLS

A long average tenure was a common factor among the faculties at most of the schools. The average teacher had taught the last ten years in the same school. Collins and Hubbard, which both recently experienced rapid faculty turnover, were the exceptions. Many teachers entered the Chicago Public School System in the 1960s and early 1970s. After a few initial moves, most settled into their current school and are still teaching there. This longevity may have contributed to a uniformity among teachers in their perceptions of students and their frustrations with the system.

Most teachers taught five periods, had two periods of free time for preparation or "counseling and guidance," one period for lunch and one

period for hall monitoring, lunchroom or some other duty. Shop teachers taught six periods. Many teachers felt they were overburdened with paperwork, such as filling out cut slips. They were particularly upset when they could see no concrete results from the paperwork. In most schools, teachers believed the administration could provide them with more support, such as phones to use to call parents, the reduction of unnecessary paperwork, and more support in enforcing school policies on discipline, cutting, and tardiness.

Figure 5



The second major source of faculty frustration was a perceived decline in student preparation and motivation, particularly in the past five or six years. Although teachers at all of the schools except Simeon mentioned a decline in student interest and ability to do the work as contributing to lowered teacher morale, TAP scores for the years 1982-1895 indicate that at five of the eight schools, there has been, in fact, some improvement in ninth grade reading scores. (See Figure 5.) In two of the schools (both schools with the lower dropout rate in a pair) student scores did decline slightly in reading and math. (See Table 8.)

Table 8

CHANGES IN NINTH GRADE TAP SCORES

Reading

Year	DuSable 58%*	Collins 48%	Wells 56%	Bowen 42%	Hubbard 40%	Wash'ton 24%	Simeon 34%	West'hse 22%
1982	14	16	18	23	27	40	33	31
1983	16	18	21	19	33	42	35	33
1984	18.5	14	21	21	29	37	33	29
1985	18	22	23	23	40	37	40	27

*1982 Dropout Rate

Math

Year	DuSable	Collins	Wells	Bowen	Hubbard	Wash'ton	Simeon	West'hse
1982	12	19	21	19	25	35	28	32
1983	12	16	19	19	28	39	28	32
1984	16	16	21	21	32	35	32	28
1985	16	19	21	25	32	32	35	28

Teachers offered many explanations for this perceived decline in student motivation and preparation: the pervasiveness of television and the "video mentality," increasing numbers of students from one-parent families, lack of adult role models, declining preparation in elementary school, lack of employment opportunities for graduates, and so on. Many teachers maintained that the "increasing" lack of responsiveness of students was a major source of teacher "burnout." As several expressed it, teachers had to put more energy into teaching, but remain satisfied with fewer results and rewards. Teachers may have been responding more to perceptions of motivational changes in students than to their ability to do the work since they attributed their feelings of apathy and burnout to the frustration of being unable to reach a group of students substantially different from their predecessors, saying that the present students saw no purpose in education and showed little interest in learning.

Many teachers said they would leave teaching if they had an opportunity to do something else. But as one said, "By the time you are in your thirties and have children of your own to support, what else can you do? It's a paycheck." A number reported holding second jobs and indicated they would leave teaching entirely if they could support themselves with those jobs.

C. Comparison of the Four Pairs of Schools

At the outset of the study it was anticipated that some differences would be found between the school with the higher dropout rate and that with the lower dropout rate across all four pairs of schools. Certain characteristics mentioned in the literature on effective schools were expected to differentiate the schools with the lower dropout rate in each pair. Although differences were found, the overall findings were less clear cut than had been anticipated initially. Several complexities and problems in comparison account for the difficulty in drawing firm conclusions.

First, the schools were not perfectly paired. The external differences may be as significant to the dropout rate as the in-school practices. For example, the poverty rate of students at DuSable was 12% higher than that at Collins paralleling the 11.2% higher dropout rate at DuSable.

Second, there have been recent changes in the administrations at three of the eight schools. The present principal at Collins has been there only since the fall of 1985. The principal at Hubbard was appointed in the spring of 1984, and the principal at Westinghouse assumed his job in the fall of 1982. Other changes in the schools have also occurred since 1982. For example, the dropout rate at Westinghouse increased by almost five percentage points between 1982 and 1984. At the same time, the dropout rate at Simeon declined by one percent, bringing the two schools in the pair closer together. Therefore, present practices and answers to the questionnaires can not be assumed to reflect perfectly conditions in 1978-84. These data, however, should be useful in analyzing future dropout figures.

Third, as the study progressed, all ethnographers found their perceptions of the schools changed. Initial impressions were modified. Differences seemed less clear and the situation more complex. There are at least two possible explanations for this change. The first is that the longer the time the ethnographer was in the schools, the more his or her understanding grew of the complexities of the high school organization. Alternatively, the reason differences may have appeared less clear by the end of the study is ethnographer bias or subjectivity. By the end of the study three of the ethnographers perceived the school with the higher dropout rate more favorably than they had at the beginning of the study. In two cases the ethnographer also felt less positive at the end towards the school which created the better initial impression.

Despite the imperfections and complexities of the pairings, six clear differences emerged which distinguished the high from the low dropout school in most pairs. *These six factors include the leadership of the principal, the degree of order and discipline in the school, school attendance rates, failure rates, the amount of time teachers engaged in actual instruction, and the percent of teaching time spent in interactive teaching.* Each of these differences was found in at least three out of four paired schools.

Two other factors, while less clearly demonstated, were found by more than one of the ethnographers to be a difference between schools in some pairs. First, in two pairs the condition and maintenance of the physical plant appeared to make some difference. In both of these pairs the schools with the lower dropout rates were housed in the superior and better maintained building. Second, in some of the pairs more political dissension existed between the faculty and administration in the lower dropout school. On the other hand, there was also some indication that the faculty in these schools tended to feel a greater sense of community with the school and students.

1. Leadership of the Principal

The ethnographers judged the principals at the schools with the lower dropout rates to be stronger overall leaders. Evidence from the study suggests that the type of leadership role the principal assumes may affect the dropout rate in several ways. First, the principal who strongly enforces student and teacher discipline insures a more orderly and disciplined atmosphere in the school. This aspect of an effective school is almost always noted by researchers. The four pairs of schools, with one exception, confirmed this finding. Second, and closely related, the effective principal holds and communicates clearly a set of expectations to students and teachers. Third, on a more philosophical level, the present study found that the principals in the lower dropout schools tended to have a clearer vision or ideology for the school. Finally, the principal of the lower dropout school in each pair generally used staff more effectively and often had a more authoritarian style of management. Figure 6 shows the precentage of teachers' responses at each school which characterized the principal as "maintaining control in own hands" or "soliciting staff opinions but ultimately making the decisions."

Figure 6

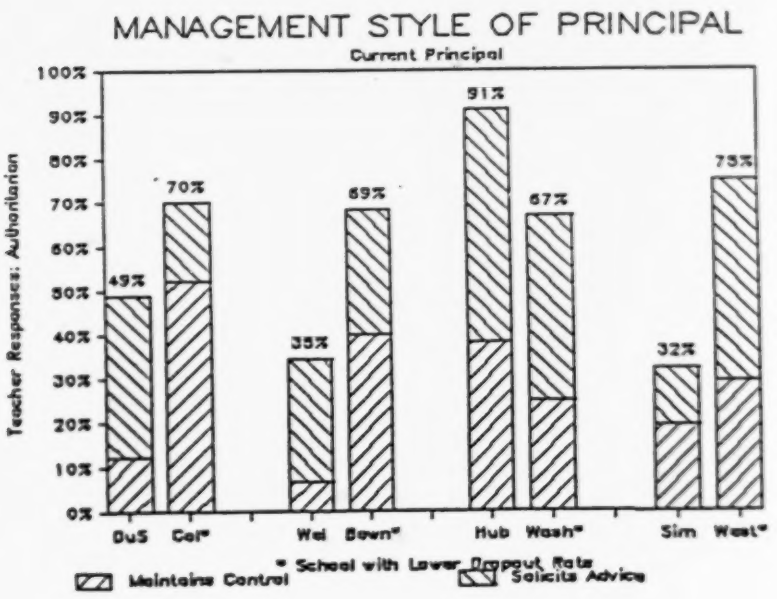


Table 9 indicates how interviewed teachers perceived their principal's management style. Teachers were asked to characterize the principal's style of management as one or more of the following: democratic, team player, maintains control in own hands, top down decision maker, solicits opinions but makes own decisions, and delegates responsibility. Responses for two sets of categories were combined: democratic-team player and maintains control-top down. A Chi-Square test of significance confirmed that in three of the four pairs of schools, teachers in each pair viewed their principals as having different management styles. Teachers at the school in each pair with the lower dropout rate were more likely to characterize the principal as ultimately maintaining control in his own hands. For example, most teachers at Collins perceived their principal as someone who maintains control in his own hands, while those at DuSable saw the principal as being a "team player." There was no significant difference in teacher perceptions at Hubbard and Washington.

Table 9

MANAGEMENT STYLE OF PRINCIPAL: TEACHER PERCEPTIONS
Percent Teacher Responses At Each School

Mangmt Style	DuSable (58%)*	Collins (48%)	Wells (56%)	Bowen (48%)	Hubbard (40%)	Wash'ton (24%)	Simeon (34%)	Westhse (22%)
Democratic	29.3%	8.2%	13.8%	10.7%	2.9%	12.5%	0.0%	0.0%
Maintains Control in own hands	12.2%	52.2%	6.9%	39.9%	38.2%	25.0%	19.4%	29.2%
Solicits Opinions Makes Own Decisions	36.6%	18.0%	27.6%	28.6%	52.9%	41.7%	12.9%	45.8%
Delegates Responsi-bility	22.0%	21.3%	20.7%	10.7%	5.9%	20.8%	48.4%	8.3%
Other	0.0%	0.0	31.0%	10.7%	0.0%	0.0%	19.4%	16.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number of Responses	41	61	29	28	34	24	31	24
Total Teachers Interviewed	20	20	21	21	20	20	20	20

* 1982 Dropout Rate

The former principal at Collins appeared to have assumed a stronger, more controversial, leadership role (especially during the initial period of his administration) than the principal at DuSable who was more a mediator and facilitator. The principals at Bowen and Washington were also judged to have been more effective administators than their counterparts at Wells and Hubbard during the period 1978-84. The picture is less clear for Westinghouse and Simeon. Although the present principal at Westinghouse has been there since 1982 and clearly provides the school with strong leadership, his predecessor was characterized by most interviewees as a laissez-faire principal under whom teachers and students remained largely unsupervised. The principal at Simeon, while delegating many of the everyday details of running the school to others, clearly did not allow students or teachers this kind of autonomy.

The evidence to support these assertions comes from several sources: the ethnographer observations, questions from teacher interviews concerning the management style of, expectations of, and conflicts with the principal, and answers to questions on the administration interviews. It should be noted again that Collins, Hubbard and Westinghouse experienced changes in principals during or after the period of the previous dropout study (1978-84).

In three of the four pairs of schools, the school with the lower dropout rate was headed by the stronger principal who provided effective leadership during the period 1978-84. Simeon and Westinghouse appear to be the exception. However, since the present, more effective, principal at Westinghouse assumed his position in 1982, the dropout rate has actually increased by more than 5%. Much of the increase can probably be explained by an increase in the percentage of students entering with lower reading scores.

2. Discipline and Safety in the School

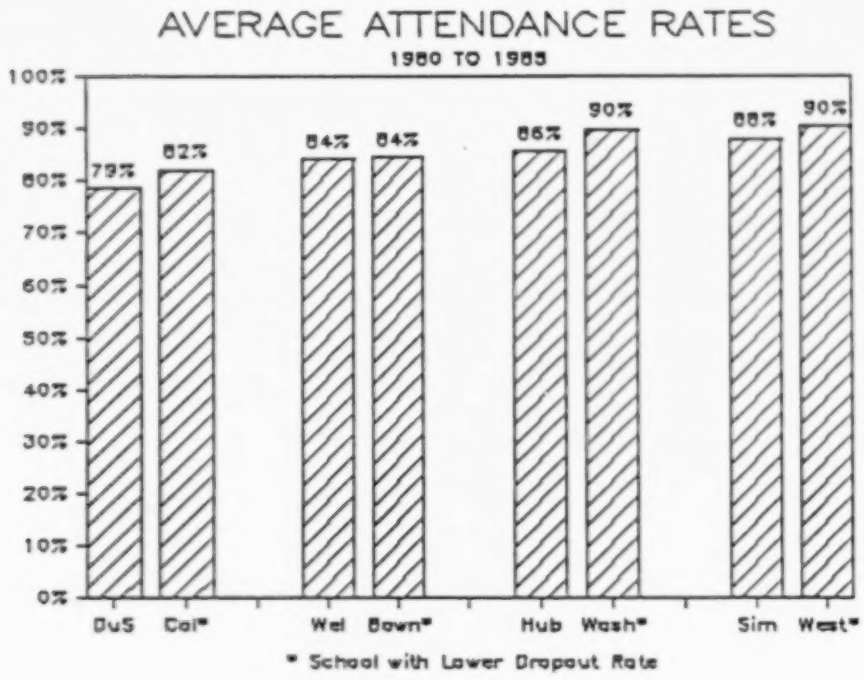
In three out of the four pairs of schools, students in the lower dropout school were more orderly and disciplined in the halls, lunchroom and other areas of the school. The exception was Bowen and Wells, where the ethnographer could perceive no real difference in discipline. There may have been more difference between these two schools in the past, however, since a campaign to decrease tardiness and absenteeism and to improve discipline in the halls had just been instituted at Wells as the study period began. It should be noted that while differences in discipline in the halls and lunchrooms were noticeable in the other three pairs of schools, the variation in classroom discipline was greater within a school than between schools. This is not surprising since the variation among teachers is also greater within a school than between schools, and teachers are generally responsible for maintaining order within classrooms.

The lower dropout school was also perceived as safer by students and teachers in most pairs. An exception to this was the Simeon and Westinghouse pair; both schools were rated as very safe by staff and students.

3. Attendance

In three out of the four pairs of schools, student attendance at the lower dropout school was significantly better. Except in the case of Bowen and Wells, attendance rates were generally three or four percent higher in the lower dropout schools between 1979 and 1984 (see on, Table 10). A paired T-test revealed that there was significant difference (at the .05 or .01 level) between the schools in each pair except Bowen and Wells. Not surprisingly attendance received different emphasis at the schools with lower and higher rates.

Figure 7



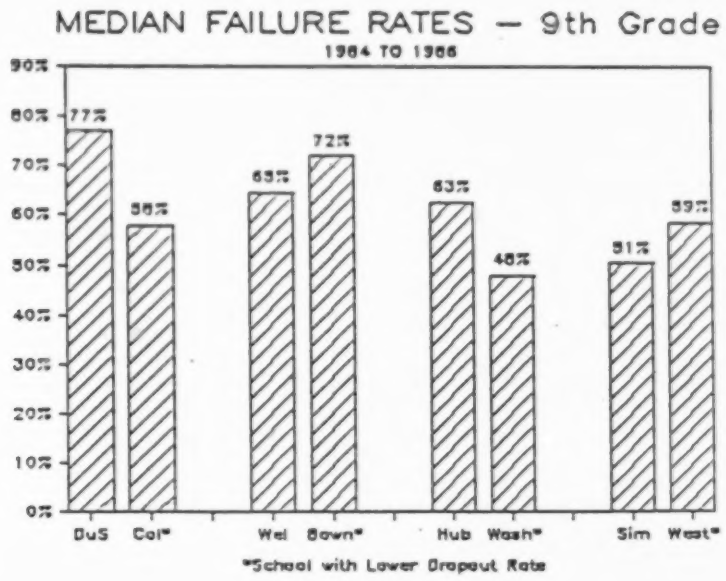
4. Teacher Attendance

Teacher attendance was better at some of the lower dropout schools. Westinghouse, for example, has had 99% teacher attendance this year. The administration at Simeon indicated that teacher absences fluctuated greatly between 2 or 3 a day to as high as 23 or almost 25%. Although teacher attendance was slightly better at Hubbard than at Washington this year, it may not have been in the past when teachers were less closely monitored.

5. Failure Rates

Figure 8 and 9 indicate that while schools with the lower dropout rates also had lower failure rates in grade 11, the pattern was not so clear in grade nine.

Figure 8



The schools with the lower dropout rates in two of the pairs (DuSable/Collins and Hubbard/Washington) also had lower failure rates. In another pair (Simeon/Westinghouse) the school with the lower dropout rate had lower failure rates in some years and grades but not in others. The final pair offered a contrary finding with Bowen, the school with the lower dropout rate, reporting higher failure rates. (See Table 10.)

Current failure rates may be a better indicator of future dropout rates than of present rates. If this is the case, it can be predicted that the dropout rate at Bowen may increase in the next few years while that at Hubbard should decline.

Figure 9

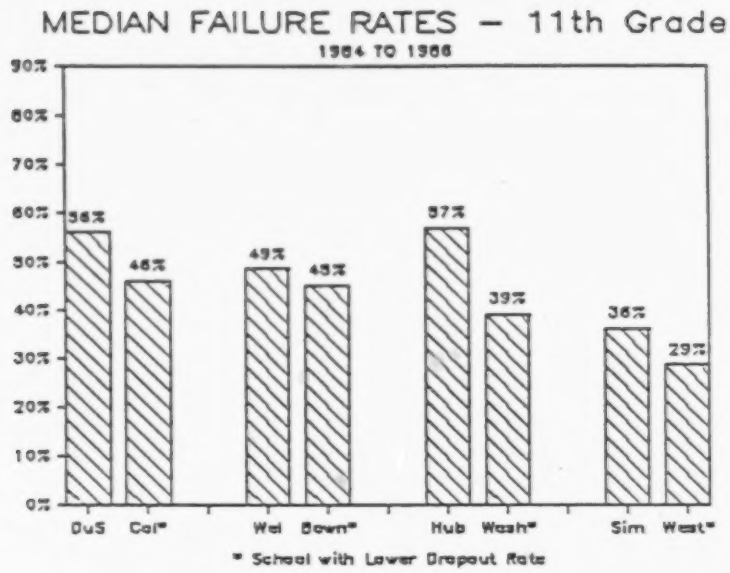


Table 10
JANUARY FAILURE RATES
1984, 1985 1986

Number Failures	DuSable	Collins	Wells	Bowen	Hubbard	Wash'ton	Simeon	Westhse
Grade 9								
Jan. 84	81%	53%	67%	69%	71%	n/a	52%	n/a
Jan. 85	79%	63%	62%	75%	67%	n/a	50%	61%
Jan. 86	73%	63%	63%	70%	54%	48%	49%	56%
Grade 10								
Jan. 84	66%	68%	51%	56%	68%	n/a	40%	n/a
Jan. 85	75%	74%	61%	62%	63%	n/a	48%	34%
Jan. 86	81%	71%	53%	59%	56%	56%	45%	51%
Grade 11								
Jan. 84	54%	44%	41%	44%	51%	n/a	32%	n/a
Jan. 85	58%	48%	44%	44%	52%	n/a	35%	30%
Jan. 86	57%	46%	56%	46%	63%	39%	40%	27%
Grade 12								
Jan. 84	29%	34%	19%	34%	32%	n/a	14%	n/a
Jan. 85	44%	29%	23%	41%	33%	n/a	23%	10%
Jan. 86	43%	29%	29%	43%	26%	13%	15%	18%

n/a- Data not available on Board of Education computers

Policies towards failure rates and promotion differed among schools. Some schools, such as Westinghouse, demoted students beginning in the freshman year. Most of the schools did not demote students until the junior year. While most principals stated that reducing the failure rate was a goal, the emphasis it received at different schools varied. At Washington, Westinghouse and Hubbard, the principals were exerting pressure on teachers to reduce failure rate by altering their methods of instruction. Teachers at Westinghouse and Hubbard reported more conflict with the administration over this issue.

6. Classroom Instruction Time and Interactive Teaching

Two interesting findings emerged when the 20 classroom observations for each school were analyzed. First, in three out of the four pairs of schools, teachers in the school with the lower dropout rate devoted considerably more time to active instruction (discussions or lectures) as opposed to seatwork (See Table 11 and Figure 10). Chi-Square tests revealed these difference to be significant at the .001 significance level. However, teachers at Simeon, the school with the higher dropout rate, devoted the same proportion of time to active classroom instruction as did their colleagues at Westinghouse. It is interesting to note, however, that approximately ten percent of this instructional time at Simeon was spent going over homework in class. At Westinghouse only two percent of active classroom instruction involved reviewing homework. (A cautionary note: due to differences in ethnographer perceptions, valid comparisons can only be made between pairs of schools observed by the same person, not between schools in different pairs.)

Figure 10

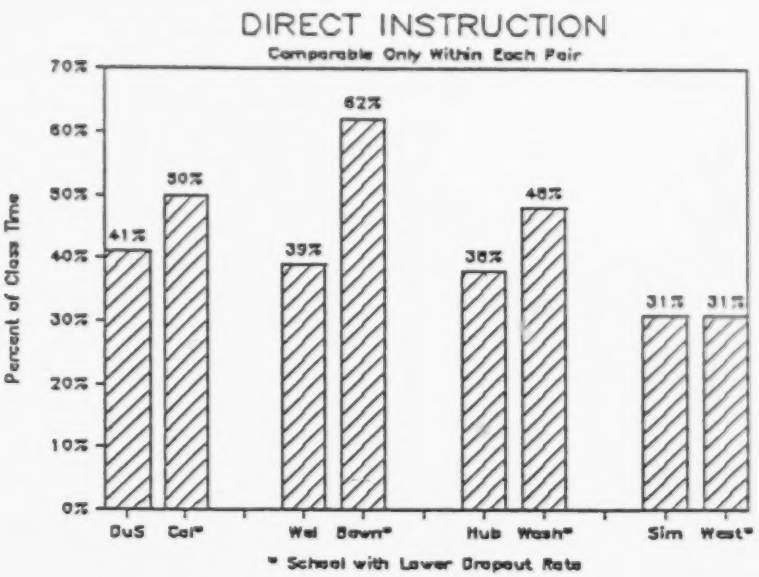


Table 11

PERCENT OF TIME SPENT IN DIRECT CLASSROOM INSTRUCTION
vs. SEATWORK AT EACH SCHOOL*

High School	Active Class Instruction	Seatwork	Non-Instruc'l Activity	Other Activity
DuSable	41%	36%	6%	17%
Collins	50%	35%	6%	8
Wells	39%	48%	10%	3%
Bowen	62%	25%	11%	3%
Hubbard	38%	40%	13%	9%
Washington	48%	28%	12%	11%
Simeon	31%	36%	20%	14%
Westinghouse	31%	40%	18%	11%

*Due to differences between ethnographers, schools should not be compared across pairings.

Active Class Instruction - lectures and question and answer discussion
Seatwork - unsupervised seatwork and supervision of individual student work
Non-instructional Activity - taking attendance, dressing for gym, set up, assignments and announcements
Other Activity - time lost due to disciplining, tardiness of teacher, talking to ethnographer, and general chaos.

Second, in three of the four pairs there was more interactive teaching (individual supervision or question and answer discussion) than non- interactive teaching (lectures or unsupervised seatwork) in the school with the lower dropout rate. (See Table 12 and Figure 11.) Interactive teaching was defined as instruction in which the teacher is actively interacting with the students either through question and answer discussions, supervised group work during which the teacher circulates among the groups, or supervised individual seatwork where the teacher actively instructs students individually. Interactive teaching can be contrasted with non-interactive in which the teacher assigns students a task and engages in another activity, such as grading papers while the students work on their own.

The difference between two pairs, DuSable/Collin and Hubbard/Washington, was significant at the .001 level, using the Chi-Square test. While there was a difference in the expected direction between Westinghouse and Simeon, it was not quite significant at the .05 level. There was no significant difference between Wells and Bowen.

Again, because the judgments of ethnographers undoubtedly differed in scoring the classroom observations, one must be careful in comparing non-paired schools in Tables 11 and 12. However, in the "Other" column

on these tables, DuSable stands out as a school in which there is an inordinate amount of class time lost to instruction due to the tardiness of teachers or students, talking, and discipline problems.

Figure 12

INTERACTIVE TEACHING

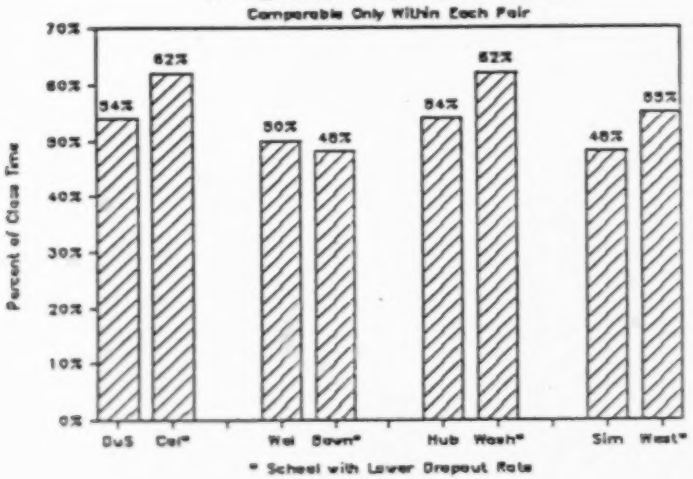


Table 12

PERCENT OF TIME SPENT IN INTERACTIVE
vs. NON-INTERACTIVE TEACHING*

High School	Interactive Teaching	Non-Int'active Teaching	Non-Instruc'l Activity	Other Activity
DuSable	54%	23%	6%	17%
Collins	62%	23%	6%	8
Wells	50%	38%	10%	3%
Bowen	48%	39%	11%	3%
Hubbard	54%	24%	13%	9%
Washington	62%	15%	12%	11%
Simeon	48%	19%	20%	14%
Westinghouse	55%	16%	18%	11%

*Due to differences between ethnographers, schools should not be compared across pairings.

Inter-active Teaching - supervised individual work, question/answer discussions, and tests
Non-interactive Teaching - unsupervised seatwork and lectures
Non-instructional Activity - taking attendance, dressing for gym, set up, assignments and announcements
Other Activity - time lost due to disciplining, tardiness of teacher, talking to ethnographer, and general chaos.

7. Maintenance of Facilities

In two of the pairs, the physical facilities were in better condition at the school with the lower dropout rate. Much of the difference could be accounted for by newness of the building (Collins) or its better suitablity to house a school (Westinghouse), but there were also some differences in the maintenance and in the resourcefulness of the principal in getting extra money or organizing parents to lobby for funds. While buildings and their maintenance, *per se*, cannot be said to cause a higher dropout rate, good, well kept facilities do contribute to an environment that is conducive to learning. It is important that in both of the pairs with marked differences in facilities, the lower dropout rate school is housed in the better building.

Simeon and Westinghouse offer one example. While both are housed in former warehouses, the physical facilities are better suited for a school at Westinghouse. The present principal at Westinghouse also has been very successful in organizing parents to lobby the School Board for funds to improve the building. Although building engineers at both schools emphasized the importance of removing graffiti immediately to keep further incidences in check, this policy was more quickly and consistently carried out at Westinghouse. One factor which appeared to make considerable difference in the attractiveness was whether teachers had their own classrooms. At Westinghouse teachers were more likely to decorate and post student work on bulletin boards and to remove graffiti from desktops than at Simeon where two or more teachers were forced to share a classroom. Finally, it must be noted that a new gymnasium was scheduled for construction at Simeon during 1986.

8. Political Dissension

An interesting factor was the greater degree of political dissension between faculty and administration in the schools with the lower dropout rates. This phenomenon was associated with schools with the lower dropout rate in three out of the four pairs. This difference might be a function of the management style of the principal, since those principals who were judged to take a stronger, more assertive leadership role were also those who tended to generate the most conflict. This was particularly true in the cases where a new, strong principal replaced one who had taken a more laissez-faire role towards supervising teachers and enforcing policies, as at Hubbard and Westinghouse.

DISCUSSION

In this brief summary of three separate but interrelated studies of the urban dropout problem it has not been possible to provide the extensive documentation contained in the studies themselves. However, it is apparent that some patterns have emerged.

It should not be surprising that dropout rates are directly related to measures of student achievement, particularly to reading scores and retention. Both the original high school level study of dropout rates and the elementary study have confirmed this finding. Further, these studies both point to the school unit and the school system policies affecting student enrollment as key elements in enhancing or detracting from student achievement and a steady progress through the grade levels.

The high school ethnographic study indicates that there <u>are</u> things which can be done at the school level to improve student achievement and that these things correspond to reduced dropout rates. The comparison of ninth grade TAP scores over several years and the comparison of the eighth grades in 1978 and 1986 indicate that school level improvements may work to reduce dropout levels.

All three of these studies indicate there are a number of other things which can still be improved at both the elementary and secondary levels to enhance school improvement. Such simple things as increasing the time on task for high school students in city schools by increasing the class period by ten minutes and thereby eliminating schedule-filling study halls would put city students on a par with suburban students in minutes of instruction per week in major subjects like English, math, and the sciences.

None of these findings are earth-shattering in their profundity. Why, then, do educational policy-makers focus on other answers? Why do dropout prevention strategies focus on counselling and support services for students who have already been severely disadvantaged by the schools they have attended even more than by their family backgrounds? Why do scholars continue to describe potential dropouts as "marginal" and advocate alternative school programs or auxilliary services as the remedy, when they are the behavioral norm in many urban schools which refuse to adopt an educational approach to serve the majority of their enrollees?

The great value of the effective schools approach is that it is based upon the conviction that inner city kids, despite their disadvantaged backgrounds, can learn and can perform at national norms if given the proper school context. But too many urban school administrators prefer to believe these students cannot perform. They use the findings of the 1966 Coleman report, that the only significant variable in judging school performance at that time was family background, in a pernicious way to excuse the non-performance of their own schools. They have taken that descriptive finding and made it into a prescriptive conviction, that poor, inner city, minority kids cannot learn. "You cannot expect such students to achieve national norms." During the past year, variations of that statement have been heard from Chicago school administrators across the city. They are reinforced in these mischievous beliefs by scholars whose works use an approach which blames the victim (Ryan, 1972) by focusing on how the dropout prone are marginal students (Wehlege, 1983). Instead, it is time to refocus on the schools which these dropout prone students are forced to attend.

It is clear that, in a school system which has been structured to provide a triage-like approach to education, with some elite schools, some holding pens, and the vast range of under-performing plodder schools, an adequate dropout prevention strategy must focus on improving the 80 percent of the schools which

are performing below national norms. This requires paying attention to the students who are achieving at below norm levels, for they are the most likely to drop out. It is easier to raise median reading scores than to reduce the number achieving in the lowest quartile. Different students become the target for each of these strategies. For administrators interested in making their scores look good, attention is focused on improving median reading scores. To improve median scores, attention is focused on the ten percent of the class performing just below the current median and those just above it. If students in that twenty percent of the class significantly improve their scores, the median will soar upward without any improvement among the students in the lowest forty percent. However, that improvement will not necessarily be reflected in significant decreases in the dropout rate. If attention is centered on decreasing the number in the lowest quartile nationally, then the lowest performing students will be the focus and dropout rates are more likely to decline significantly.

Thus the issue for dropout prevention is whether a school improvement or a student correction strategy should be the major focus. It is the contention of the Chicago Panel that the primary emphasis should be put on school improvement, particularly for the worst performing students. It is a pleasure to be able to report that the Chicago school system has used, in just such a way, recently received state reform funds. Extra assistance has been focused on the 50 schools with the lowest reading students. Class size reductions have been accomplished with these funds in addition to after school tutorials and summer school offerings. These approaches, together with the trend towards increased achievement already demonstrated in the elementary schools, is a promising development for reducing school dropout rates.

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